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SEA-GRAVIMETER TRIALS ON THE HALIFAX TEST RANGE ABOARD CSS BAFFIN, 1963

by
D. R. Bower
Dominion Observatory, Ottawa, Canada
and
B. D. Loncarevic
Bedford Institute of Oceanography,
Dartmouth, Nova Scotia

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CSS BAFFIN

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Sea-Gravimeter Trials on the Halifax Test Range aboard CSS BAFFIN

D. R. Bower and B. D. Loncarevic

Abstract: Two precisely located and calibrated lines on the Halifax Sea Gravimeter Testing Range were traversed back and forth for a total of 100 times while gravity measurements were made with both the LaCoste and Romberg and the Askania-Graf sea-surface gravimeters. During the three-week test, which was conducted in October 1963, the rms heave accelerations experienced varied from 2 to 78 gals with a median value of 13 gals. Useful gravity readings were obtained with the LaCoste gravimeter up to heave accelerations of about 30 gals and up to at least 50 gals for the Askania. (Cross coupling determinations were not possible at greater accelerations.) The LaCoste gravimeter occasionally hit its stops at accelerations greater than 35 gals, and the results in general were 'noisier' than those for the heavier-damped Askania gravimeter. Gravimeter errors were determined by subtracting observed values, corrected for Eötvös effect, from reference values determined previously from ocean-bottom measurements. The mean LaCoste gravimeter error observed during a traverse varied from run to run to form a near normal distribution with mean +0.6 mgal and standard deviation 3.9 mgal. Corresponding figures for the Askania were: mean −0.4 mgal and standard deviation 2.7 mgal. The distribution, however, was markedly skewed toward negative values. Long-period accelerations recorded by the horizontal accelerometers used with the LaCoste gravimeter frequently proved to be fictitious and the computed Browne corrections accordingly to be too large. Corrections for cross-coupling effect were determined after the test by using magnetic-tape records of heave and surge acceleration. These determinations generally agreed closely with the observed Askania errors except in very rough seas and when course-keeping was poor. Instrument drift, determined by periodic dockside measurements, was negligible for the LaCoste gravimeter and somewhat irregular over a 7.0-mgal range for the Askania.

Résumé: Deux cheminements calibrés et localisés avec précision dans la zone d'essai pour gravimètres marins, près d'Halifax, ont été parcourus une centaine de fois, dans les deux sens, alors que l'on prenait des lectures à l'aide des gravimètres marins de surface LaCoste et Romberg et Askania-Graf. Au cours des trois semaines d'essai, en octobre 1963, l'écart-type des accélérations de levée enregistrées a varié entre 2 à 78 gals, la valeur moyenne étant de 13 gals. A l'aide du gravimètre LaCoste, on a obtenu des lectures utiles allant jusqu'à des accélérations de levée d'environ 30 gals et jusqu'à au moins 50 gals à l'aide de l'Askania. (Il n'a pas été possible d'effectuer des mesures par couplement croisé pour des accélérations plus fortes.) Le gravimètre LaCoste a parfois heurté ses butoirs à des accélérations supérieures à 35 gals et les résultats, de façon générale, étaient plus «bruyants» que ceux obtenus à l'aide du gravimètre Askania à amortissement plus prononcé. Les erreurs du gravimètre ont été calculées en soustrayant les valeurs observées, corrigées pour l'effet Eötvös, de valeurs repères déterminées antérieurement par des mesures prises au fond de l'océan. L'erreur moyenne du gravimètre LaCoste observée durant un parcours a varié d'une course à l'autre pour donner une répartition presque normale dont la moyenne était de +0.6 milligals et la déviation normale de 3.9 milligals. Les valeurs correspondantes pour l'Askania ont été de −0.4 milligals (moyenne) et de 2.7 milligals (déviation normale). La répartition cependant a présenté des tendances marquées vers les valeurs négatives. Les accélérations à longue période enregistrées par les accéléromètres horizontaux utilisés avec le gravimètre LaCoste se sont souvent révélées sans fondement et les corrections Browne apportées étaient en conséquence trop grandes. Les corrections pour l'effet de couplement croisé ont été déterminées après l'essai en utilisant des enregistrements sur bande magnétique de l'accélération de levée et de poussée. Ces calculs, de façon générale, concordaient avec les erreurs observées au gravimètre Askania sauf par très fortes mers et lorsqu'il était difficile de naviguer en ligne droite. La dérive des instruments, déterminée par des mesures périodiques faites à quai, était négligeable pour le gravimètre LaCoste et quelque peu irrégulière au-dessus d'une amplitude de 7.0 milligals pour l'Askania.

INTRODUCTION

Reliability studies of the LaCoste and Romberg and the Askania-Graf sea gravimeters were previously conducted mainly on the basis of repeated measurements, by comparison with submarine pendulum measurements or by comparison with a relatively few bottom measurements made with underwater gravimeters (Allan *et al.*, 1962; Dehlinger, 1964; Fleischer, 1963; Loncarevic, 1963 and 1965). As a result of these studies and others, the performance of both gravimeter systems has been greatly improved (Caputo *et al.*, 1963; Graf and Schulze, 1961) since the first trials were reported by Graf (1956) and LaCoste (1959). With both instruments, however, errors are still experienced that seriously impair their reliability, and a concentrated effort to identify and eliminate these errors continues.

Errors can be introduced by poor navigational control, irregular steering, poor survey techniques in general and what will be termed first- and second-order faults of the

gravimeter system. First-order faults will include simple frequency, phase and amplitude distortion in the gravimeter system, instability (excessive drift and tares) and, in general, the faults that can be detected by laboratory tests, including tests on a laboratory machine that simulates the motion of a ship by periodic, vertical and horizontal motion. Second-order faults are those that are not apparent during such simple tests but are presumed to be present at sea. The essential purpose of a sea test is to detect systematic errors due to these second-order faults and to relate them to features of the ship's motion. Such errors are presumed to be caused by subtleties involving coupled motions or nonlinear effects. They are normally small and must be carefully separated from errors due to other causes. For this reason a statistically significant sea test must involve the comparison of a large number of surface-gravity measurements, precisely located along 10- or 20-mile tracks, with high-density measurements made on the ocean bottom by underwater gravimeter. This is generally recognized today and has led to the establishment of several more or less adequate sea-gravimeter testing ranges throughout the world. In particular, the Dominion Observatory established a testing range near Halifax, Nova Scotia. This range was intended to provide a reliable basis for the conduct of gravity surveys by the Bedford Institute of Oceanography and will be used to test gravimeter systems before and after surveys, to appraise new equipment and techniques and for reliability studies designed to identify the second-order errors already referred to.

The present report is an account of the first such reliability test, which took place during October 1963 as a joint project of the Gravity Division and the Bedford Institute. The test, which included the simultaneous comparison of the Askania and the LaCoste gravimeters, was particularly valuable and extensive, since it took place before the Bedford Institute purchased a gravimeter system and before survey techniques were established.

PART I

Test Description

1.1 Preliminary requirements

The reliability evaluation of a sea-surface gravimeter system is an experimental study of great complexity and considerable practical difficulty. In the planning of such an investigation, a number of requirements must be fulfilled if a significant contribution is to result. The following 10 conditions were considered necessary for the current investigations.

(i) The ship with a gravimeter on board must be assigned to the reliability investigation primarily and for a sufficiently long period so that a full range of weather conditions can be experienced. This need was, in fact, clearly demonstrated during the month-long test by regular, systematic changes in the behaviour of both gravimeters. (ii) The investigation should be carried out over a test range where the gravity control has been established by means of a sea-bottom gravimeter with an accuracy at sea surface of better than one mgal (one mgal is an acceleration of 10^{-3} cm/sec^2). (iii) The depth of water and the open fetch available for winds must be such that the wave spectrum approximates the open-ocean condition. These requirements are discussed in Appendix II. (iv) Sufficient aids to navigation must be available so that the ship's easterly speed over the ground can be determined with an accuracy of 0.1 knots. (v) The gravity gradient in the test area must not be too large. The uncertainties of position due to navigation errors and the averaging effect of the gravimeter response should not introduce an error of more than a few tenths of a milligal in the comparison between the test measurements and the reference value. (vi) Tidal and other variable currents in the area should be small, preferably negligible, since final track adjustment is very difficult if variable currents have to be considered. (vii) The test area should be outside the normal shipping lanes and fishing areas so that the test vessel will not be forced to alter course for traffic while on a gravity run. (viii) A base pier should be available within a reasonable distance of the test area so that frequent checks of the gravimeter drift can be made. (ix) The three components of linear ship acceleration, the three components of rotation, the gyro-platform servo error, and the gravimeter-beam response should be monitored and recorded (preferably in a form suitable for subsequent automatic data-processing) so that correlation between the disturbance and the gravimeter error can be studied. (x) The test area must be large enough to permit sailing at least one continuous track, at normal survey speed, for a distance of at least 10 and preferably 20 miles. This requirement is demonstrated in Appendix I.

1.2 The testing range

Bottom-gravimeter measurements provide the only satisfactory reference at present for the evaluation of the performance of shipborne sea gravimeters. The United States has at least three coastal gravimeter-testing ranges: two on the west coast—off San Francisco, California (Orlin *et al.*, 1962), and Newport, Oregon (Rinehart and Berg, 1963)—and one on the east coast—off Long Island (Anon., 1962). In addition there are at least four areas in the world where bottom-gravimeter measurements are sufficient and shipborne gravimeter trials can be carried out: in the North Sea (Collette, 1960), around the coast of Italy (Ciani *et al.*, 1960), in the Persian Gulf and off the coast of southern California. None of these test areas fulfill all the requirements outlined in the preceding

Figure 1.
Map of test-range area.

section. The Dominion Observatory therefore undertook to establish a new testing range, and this was completed in May, 1963. The range was fully described and essential data were given by Goodacre (1964). A map of the area is reproduced in Figure 1. Complete information, with gravity maps on a scale of 1:150,000 and Decca plotting sheets, is available on request from the Gravity Division, Dominion Observatory, Ottawa 3.

The range is situated about 60 miles south of Halifax. This area is within good coverage by the Nova Scotia Chain 7 of the Decca Navigational Aid (Decca, 1961). The bottom is mainly sandy or muddy, and the depth varies smoothly from about 135 to 225 meters (75-125 fms). This depth permits ocean waves with periods up to about 15 sec. to be propagated through the area without attenuation (Appendix II). The wind fetch is essentially unlimited for azimuth between 045 and 270 degrees and is between 50 and 100 nautical miles otherwise. Thus locally generated waves, except those arising from winds of long duration, are not restricted in their development, and at least 180 degrees of azimuth is open to swells generated at a distance (Appendix II).

Large gravity gradients associated with Nova Scotia granites extend offshore for about 30 miles south of Halifax, but the range is situated south of these intrusions and the surface gravity gradients are less than one mgal per mile. About 200 bottom measurements were made over a square area, 30 miles to a side, in two phases. During the first phase a uniform grid of stations at 4-mile intervals was established. During the second phase two strips of high-accuracy, high-density observations were made with stations at one-mile intervals. The stations

were placed parallel to Decca lanes for ease of navigation. The north-south track follows the purple F52 lane and the section used is between intersections D46 and G34 of the green pattern (length 32.3 nautical miles). The northwest-southeast track follows the green E40 lane and the section used is between intersections D72 and F70 of the purple pattern (length 20.9 nautical miles). Decca lanes are not straight lines but belong to a family of hyperbolic curves. The uniform change in Eötvös correction due to this curvature is negligible for the green pattern and about 2 mgal for the purple lane (north-south line).

1.3 Instrumentation

1.3.1 *The ship's equipment*

The CSS *Baffin* (3457 G.T., 285′ L.) a research ship built in 1957, carries most of the equipment and instruments necessary for scientific work. It carries a gyro compass (Sperry Mk 14) and, besides a number of repeaters, also has a course recorder. To resolve the times of small course alterations, the last-mentioned unit was operated at four times its normal paper speed (by interchanging chart-drive gears). The gyro compass also provides control signals for the automatic pilot, which was used on all runs except those made during and after the hurricane. A Decca Navigator Mk V was equipped with a track plotter. The speed of the ship through the water was read on a SAL log. The depth sounder was an Alden 411 PGR with an Edo transducer. Since the depth was previously determined during the establishment of the testing range, soundings were taken only on a few lines for checking purposes. The timing reference for various recorders was obtained from a Westrex chronometer rated with the aid of a WWV receiver. Single phase, 115-V, AC supply (ship's normal domestic supply) was used for all the scientific instruments. The supply remained remarkably constant in both frequency and voltage. The former was about 60.5 cps and did not wander by more than a quarter cycle. There were no breaks in the supply and thus the operation of the gravimeter thermostats was uninterrupted.

1.3.2 *Askania gravimeter and the Anschütz gyrotable*

The principle and operation of the Askania-Graf sea gravimeter has been adequately described in the literature (Graf, 1958; Worzel, 1959; Graf and Schulze, 1961). The instrument under test, serial number 17, was new. It was equipped for automatic servo control of the beam (Schulze, 1962), and during the trials it was operated in both servo and normal modes. The servo control unit developed several minor but annoying faults. The gravimeter was mounted on an Anschütz gyro-stabilized horizontal platform (Hayes, *et al.*, 1964), which operated satisfactorily under survey conditions; the vertical reference was a laboratory prototype of an electrically erected gyro. On constant course the performance of the reference system was excellent and probably superior to that possible with the older oil-erected gyro.

H. Karnick and R. Schulze, representing the platform manufacturer and the gravimeter manufacturer respectively, were available throughout the test for consultation and assistance.

1.3.3 *LaCoste gravimeter*

The Lacoste gravimeter used was Air-Sea Meter No. S8, built in 1961 but repeatedly modified since then to keep it up to date. It differs from the Askania gravity-measuring system mainly in the type of vertical reference system used and in the lower degree of gravimeter-beam damping. The operation of the gravimeter is described by Orlin (1962). A beam is pivoted at one end and supported at the other by a spring to form an over damped resonant system of nearly infinite period. Under heavy damping and nearly zero restoring force, a step change in gravity will cause the beam to move uniformly with time at a rate proportional to the change in gravity. In earlier models of the gravimeter the beam displacement was recorded so that it was the slope of the recorded trace rather than its position that was significant. For the sea test, however, the manufacturer provided an automatic reader that performed the differentiating operation, kept the beam near its null position and read out directly in units proportional to gravity. This greatly facilitated the objective reading of some 200 hours of records obtained during the test. The gravimeter system, complete with two horizontal accelerometers, is suspended as a simple pendulum (actually in the form of two coupled pendulums) and allowed to follow the direction of the total acceleration vector rather than the true vertical. The gravimeter readings are reduced to the true vertical value by corrections computed by an analogue computer from readings of the horizontal accelerometers (Harrison and LaCoste, 1961). LaCoste (1963) has shown that the system equations for this type of vertical reference and for the platform type used with the Askania are the same.

G. Cobb, a representative of the manufacturer, was available for consultation and assistance throughout the test.

1.3.4. *Measurement and recording equipment*

Ship-motion measurements were made by a miniature inertial navigator originally developed for aircraft use but fitted with accelerometers and otherwise modified by the National Research Council and the Dominion Observatory to operate as a Schuler-tuned (Wrigley, 1950) vertical reference system. Three accelerometers were used (Donner, type 4310) for measurement of vertical acceleration and the two components of horizontal acceleration. The accelerometers had a maximum range of $\pm$ 0.1 g and were

derived from standard ± 0.5 g units modified by the manufacturer for improved performance with respect to non-linearity (50 mgal), hysteresis (20 mgal), resolution (0.1 mgal), zero drift (50 mgal) and cross-axis sensitivity (200 mgal/g). As a result of this decreased range the accelerometers occasionally 'limited' in very rough seas, but the improved performance generally facilitated studies of gravimeter cross-coupling and low-frequency accelerations.

Before each series of test runs, the reference system was aligned in azimuth to the particular range line to be used, with the result that the measurements became heave (vertical), surge (fore-aft), and sway (athwartship), acceleration. Transducers mounted on the gimbals of the reference system provided outputs proportional to ship roll, pitch and yaw. These measurements were recorded continuously on a seven-channel analogue magnetic-tape recorder, (Precision Instruments Model 200A) together with a compensation signal and one-second time marks. A second, four-channel, magnetic-tape recorder (Honeywell Model 8100) was used to record the Askania gravimeter-beam displacement, the LaCoste-beam displacement, and the heave and surge accelerations. Both recorders were calibrated at frequent intervals and operational amplifiers (Philbrick Model K2X-K2P) were used to remove high-frequency noise pickup and to adjust the input signals to maintain an optimum recording level at all times.

1.4 Installation

The CSS *Baffin* was designed as a hydrographic-survey ship and had no provision for a laboratory space amidships and near the water line. A special gravity laboratory had to be improvised, and the only space suitable was found in a refrigerated bread locker just forward of the gyro-compass compartment on the lower deck. Although the location of the highest-probability pitch plane (Cartwright, 1958) was not determined, it was probably slightly aft of the laboratory space. This space, which is normally refrigerated, had approximately 4 inches of insulation between the inner stainless-steel sheeting and the ship's bulkhead. This construction had two effects on the operation of the equipment. Firstly, owing to the heat generated by the electronics, the temperature in the compartment increased slowly but steadily during the cruise, which ended before the temperature rise became a problem. Secondly, there was an almost complete filtering out of the ship's vibrations, which are normally transmitted through the deck plates. The effect of vibrations on the gyro platform and gravimeter performance is difficult to evaluate at sea, and it was an advantage not to have to worry about them.

The two gravimeters and the acceleration-monitoring equipment were installed side by side in the bread locker, while all the other auxiliary equipment was installed in a dry-goods store across the passageway.

1.5 Survey procedures

The reliability evaluation test took place during the period from October 7 to 30, 1963, and consisted in repeated traverses, in both directions, of the two Decca lanes discussed earlier. A total of 98 runs was completed on the range, as follows: 25 runs northward on Purple and 25 runs southward; 23 runs eastward on Green and 25 runs westward. Each line was extended for about 2 miles beyond the end of the test track before the turn. In this way the watch-keeping officer could bring the ship to a steady course, the instrument and platform transient responses had time to die out, and optimum recording levels could be set up before the beginning of a run.

Repeating traverses on the same pair of courses was preferred to a star or cartwheel trial because it was felt that a gradual and continuous change in the sea state could be related to observations more reliably than a series of step changes accompanied by changes in Eötvös correction and in the gravity profile. For the same reason the ship's speed, except in very calm seas, was kept constant at 10 knots.

The great advantage of conducting the trials along Decca lanes lay in simplified bridge routine. Decometers were installed in front of the helmsman so that they were visible both to him and to the hydrographer who plotted and directed the ship's course. The helmsman steered the ship by applying a correction to the automatic pilot to keep a given pattern indicator steady. At the beginning of the survey, the bridge was told to steam down lane F52 without any qualifications. The decometer can be read to a few hundredths of a lane and the transient pattern shifts are of the same order. The ship was executing violent manoeuvres and sharp course alterations in an attempt to keep the decometers steady at F52.00, and this meant that the changes in Eötvös correction were quite large and that it was very difficult to keep the platform level steady.

Starting with run no. 11, a new procedure was adopted. The bridge was requested to keep the ship within 0.2 lanes of the selected track and to keep the course alterations to a minimum. During run no. 15 it was further specified that the course alterations should be limited to not more than 3 degrees in any five-minute period. After some practice it was found that it was relatively easy to follow this procedure and subsequent reliability measurements were within a few hundred feet of the control stations.

Besides the bridge watch, at least three scientific watch keepers were required at all times. One of these operated the acceleration-monitoring equipment, one operated the LaCoste gravimeter, and one operated the Askania gravimeter. The tests were carried out around the clock though there were several interruptions: because the sea conditions remained very stable and calm for some periods two excursions were made away from the range. In addition, on four days buoy-mooring experiments were undertaken and required several hours each time.

The ship returned to the Bedford Institute once a week

for a minimum of 24 hours for a harbour base check to determine the drift of the gravimeters. During these visits, minor modifications of instrumentation and some staff changes were made.

1.6 Navigation

1.6.1 *Requirements*

Determination of the ship's position at sea as a function of time is of the greatest importance when gravity observations are being carried out. This is so for the following reasons: (i) it is necessary to compare the shipborne measurements with ocean-bottom measurements, and positions must therefore be accurately reoccupied; (ii) the shipborne measurements must be corrected for the vertical components of Coriolis and centrifugal accelerations generated by the motion of the ship.

Horizontal gravity gradients over the Halifax Test Range are very small. Goodacre (1964) says that "the north-south track along Purple F52 exhibits little change in gravity and in general has transverse gradients not exceeding one mgal/mile. The northwest-southeast track along Green E40 exhibits a change in gravity of 20 mgal and has negligible transverse gradients." The maximum horizontal gradient along a track is less than 2 mgal/mile. A positional accuracy of 1000 to 2000 feet is therefore required if the intercomparison error is to be less than one mgal.

Gravity measured from a ship at sea must be corrected for the vertical components of the Coriolis and centrifugal accelerations generated by the ship's motion with respect to the spherical, rotating earth. The correction is given by Worzel (1959)—

$$\Delta g_e \text{ (mgal)} = 7.487\ V \sin \Phi \cos \lambda + 0.00415\ V^2 \quad (1)$$

where V = speed of ship in knots
Φ = true course made good
λ = latitude

The significance of the first term to gravity measurements at sea was first pointed out by Eötvös and the correction, actually the vertical component of Coriolis, is referred to as the Eötvös correction.The second term is the vertical component of centrifugal acceleration under motion; it is small and usually neglected in gravity measurements at sea.

The average Eötvös correction made during a period of time T is found by determining a position at the beginning and at the end of the period and from this the average easterly velocity. The error in the determination of Eötvös correction is related to the uncertainty in position ds, in nautical miles, by the approximate expression.

$$d\ (\Delta g_e) = (7.5 \cos \lambda)\ ^{ds}/_{T} \quad (2)$$

Thus in the range area, for one-mgal accuracy with 10-minute intervals between fixes, a position accuracy of 95 feet is required. This is an order of magnitude less than the 1000-2000 feet of location accuracy previously mentioned.

1.6.2 *Sources of error in Decca navigation*

During the trials all the navigation was done by means of Decca, Nova Scotia Chain 7 (see Appendix III for chain parameters). The Decca navigator is an electronic navigational aid that operates in the 100-kcs band. A stationary-wave pattern is established by simultaneous radio transmission by two pairs of stations. One station called MASTER is common to both pairs. The patterns are identified by colours (green and purple in our case), and the equal-phase-angle lines belong to a family of hyperbolic curves. The distance between two zero-phase hyperbolas is called a LANE. A moving ship carries a phase comparator receiver for each pattern and the intersection of two hyperbolic lines of position gives a fix (for a more detailed discussion see Decca, 1961). Because of the non-linear coordinates used in Decca navigation, the positional accuracy depends on the position of the ship within the pattern. The gravity test range represents a very small portion of the Chain 7 pattern, and the position-dependent errors can be assumed to be constant within the range. Similarly, systematic errors in absolute position can be ignored, since the same Decca pattern was used when the bottom-gravimeter observations were made during the establishment of the range. On the other hand, short term, random errors are very important, since the Eötvös correction was calculated using five-minute Decca-fixes (averaged from four readings).

The stability of the stationary-wave pattern and therefore the random errors depend upon three factors: (i) instrumental performance, (ii) the transmission path and (iii) the 'skywave' or first-hop interference. The first of these factors depends on the stability of the transmitter frequency, the accuracy with which the SLAVE stations are phase-locked to the master transmitter, the ground conductivity near the transmitter and the performance of the shipborne receivers etc. Errors due to these causes can be made negligible. For a purely sea path the ground-wave-transmission characteristics will depend primarily on the meteoroligical conditions: temperature, barometric pressure and the water-vapour pressure. In an extensive analysis of Decca accuracy, Laurila (1956) compared direct determination of the velocity of propogation by least square adjustment of 12 observations to a calculated value from Essen's equation for the electromagnetic refractive index of the atmosphere, and concluded that the velocity of propagation can be well estimated with the aid of meteorological observations. When Laurila's data are used, the mean error for either lane of the test range is less than 20 feet. Although significant, this is nevertheless a much smaller error than that due to skywave interference, which is the primary cause of short-period random errors.

The radio waves used in Decca surveys are propagated as both ground and reflected waves. In proximity of the base line the ground-wave amplitude is several orders of

magnitude larger than the amplitude of reflected waves. As the receiver is moved away from the base line the ground wave is attenuated. The reflected-wave amplitude increases up to a distance of approximately 200 km and then remains essentially constant. At a theoretical distance of about 500 km the two waves have the same amplitude. Because the skywave travels a longer path, a phase difference exists between the reflected and the direct wave given by $\alpha = 2\pi d/\lambda$ where d is the difference in distance travelled by the two waves. The actual stationary-wave pattern is therefore different from the theoretical one and depends on the relative phase α and the ratio of amplitudes of the two waves. If the reflected-wave vector remained constant, the resultant systematic error would not concern us. Between night and day, however, the reflection coefficient changes by a factor of two during the summer and seven during the winter. Seasonal change between summer and winter noon is by a factor of 30 (Nertney, 1953). The effective height of the reflection layer has a daily variation of about 8 km (Waynick, 1957), variable from day to day and subject, as is the absorption, to a marked solar control.

In addition to these daily and seasonal changes, there are rapid changes of the skywave propagation medium owing to changes in polarization at the reflection surface, reflection in depth (since D− and lower E-layers are not isotropic sharp boundaries), wave interference from two closely spaced reflection regions, ionospheric winds and general motion of the ionosphere, and solar flares. The time-dependent characteristics of all these phenomena are not well understood. The changes appear to be random, statistical properties varying from night to night. For large-scale travelling disturbances occurring in the F-layer but possibly extending into the E-layer, Hines (1959) indicates a period of 15 to 20 minutes. This confirms the visual observations of the decometers and Decca track plotter, which at night appear to wander with a time constant of five to 20 minutes. This is unfortunately of the same order as the Decca reading interval.

The magnitude of the night-time effect is equally difficult to estimate. A mean error due to skywave effect at constant reflection coefficient has been deduced by Laurila (1956) and amounts to about 0.005 lane width. This error is directly proportional to the reflection coefficient and, since the latter can vary by a factor of 2-7, random shifts of lanes of a few hundredths of a lane width are to be expected. Again, the direct observations indicate lane shifts of up to 0.1 lane width.

To estimate the over-all accuracy of the Decca fix, Laurila gives a simple approximate expression $M = \Delta N \times 10^{-4}$ where m is the mean error expressed in units of lane width and ΔN is the lane count from the monitor station. The lane width in the survey area is equal to the base-line lane width multiplied by cosec β where β is the angle subtended by the base line at the fix point. For the test range area β (green) = 62° and β (purple) = 71°. The range-lane widths are Green = 3400 ft. and Purple = 1800 ft. (Appendix III). Since a special monitor was not used in our survey, we will assume that ΔN is the lane count from slave stations—i.e. $\Delta N(G)$ = 320 lanes and $\Delta N(P)$ = 340 lanes. In this case the estimated mean error is 61 feet for purple-lane reading and 110 feet for green-lane reading. For determination of the Eötvös correction the easterly component of the ship's speed is required. For this reason the foregoing estimate of positional error must be transformed from hyperbolic to rectangular coordinates. This is accomplished by

$$m_{east} = \pm \operatorname{cosec} \sqrt{} \left[(m_p \cos \alpha_g)^2 + (m_e \cos \alpha_p)^2 \right]^{1/2} \quad (3)$$

where $\sqrt{}$ = angle between purple and green hyperbolas = 64°

α_p = angle between purple lane and parallel of latitude = 86°

α_g = angle between green lane and parallel of latitude = 30°

Thus

$$m_{east} = \pm 1.1126 \left[(.866 \times 61)^2 + (.0698 \times 110)^2 \right]^{1/2}$$
$$= \pm 60 \text{ ft.}$$

Goodacre (1964) has reported a small sample of the observed Decca pattern. According to his Figure 7, instantaneous pattern shifts could reach 0.1 lane at midnight. With the aid of the expression just given, the instantaneous east-west error can be estimated as ±166 ft. An experienced observer usually averages obvious pattern variations when reading decometers. It is not possible to estimate how much the instantaneous error is reduced by this process, but it is still very likely that the night-time error is twice the day-time mean error. It is interesting to note that data are presented later which indicate that the night-time magnitude of the random errors in observed gravity is double the day-time value in accordance with the foregoing discussion of Decca accuracy.

Any operation on board ship is only a distant approximation to a controlled physical experiment conducted in a laboratory. This is particularly true in view of the basic requirement for measurement of gravity at sea: keeping the ship on the test-range track and maintaining a constant speed and course. A sudden gust of wind may temporarily disturb the ship's progress on an otherwise smooth track; it may be necessary to change over the propulsion machinery with a brief loss of speed; an unexplained ionospheric disturbance may produce a pattern shift; an obstruction on ship's course (real or imaginary) may require a course alteration. The opportunities for human error are equally numerous: an order can be briefly misunderstood; an error can be made in reading decometers or plotting the fix; the fix reading may be late; at the beginning of a watch period the new watch need some time to get used to a routine; at the end of a watch period they are bored and tired. All these and other factors con-

tribute to deterioration of navigational accuracy. They can be minimized through a long and patient accumulation of experience but probably not eliminated without full automation of the ship's operation.

PART II

The Data

2.1 Data reduction

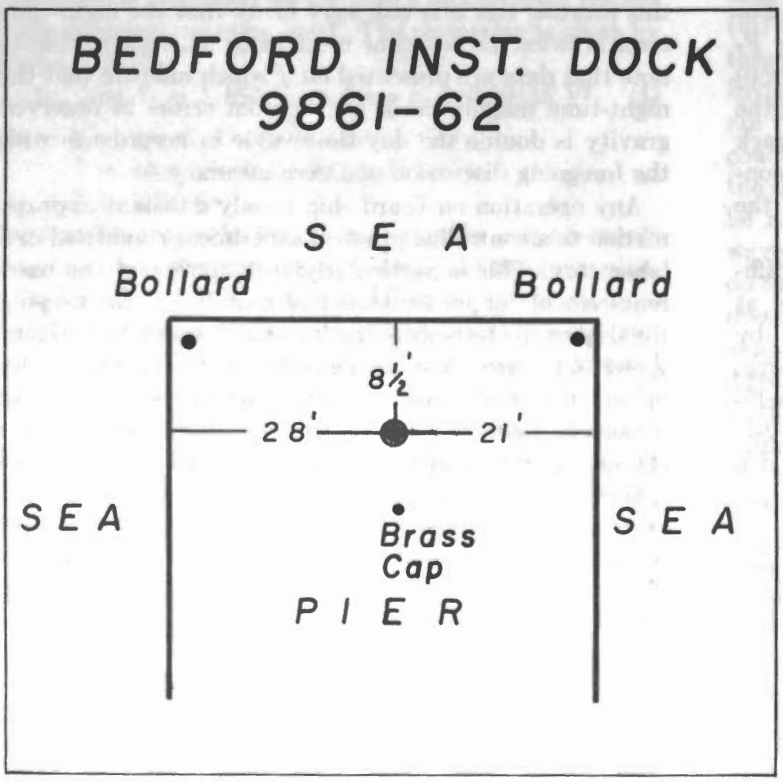
2.1.1 *Base value and calibration*

For the computations of gravity values the accepted base value was g = 980 578.9 mgal (Bedford Institute of Oceanography Pier, Dominion Observatory Station No. 9861 −62; Lat: 44° 40′.9; Long: 63° 36′.9).

A sketch of the base station is included in Figure 2. The station was established in 1962 during a revision of the Nova Scotia gravity network. This network has been adjusted recently, and the internal accuracy of the adjustment in terms of the Ottawa-Washington calibration line is approximately ±0.03 mgal. The B10 pier value in this adjustment is now g(BIO pier) = 980 578.76 mgal. The connection of the adjusted network with the national base in Ottawa is still in question and the adjustment of principal stations now in progress could alter the network level by as much as 0.5 mgal. This will not affect the comparisons between the shipborne and bottom gravimeters, since all the measurements were referred to the same base station and the same base value.

For the Askania-Graf gravimeter calibration factor a value of 1 Msd = 0.506 mgal was taken from the manufacturer's delivery certificate (Msd stands for Measuring Spring Division). This calibration value was determined on the Askania Calibration Line in West Berlin-Grundwald, which has a span of only 10.72 mgal. Since the completion of calculations that have been reported in this paper, the calibration factor has been checked over a secondary calibration line in Nova Scotia (total gravity range 195.2 mgal). The maximum gravity difference measured from the BIO pier was about 120 mgal. The value obtained in May 1964 was 1 Msd = 0.504(5) mgal, and the difference between the two foregoing calibration factors is not significant. For the LaCoste gravimeter a calibration factor of 1.02685 was provided by the manufacturer. The drift of both gravimeters was checked during the test by repeated readings at the BIO pier. The drift data for the Askania gravimeter are summarized in the table. The drift figure for the last period requires further explanation. After completing run no. 108 the gravimeter was clamped and removed from the platform for two days while various tests were carried out on the platform. During this period the gravimeter was in its transport box and, although the internal heater supply was kept on, it is possible that the instrument received a thermal shock owing to drafts. In the year and a half since the reliability trials, the Askania gravimeter has been used at sea on five cruises. During the past year the drift has stabilized at 0.08 mgal/day.

The La Coste-gravimeter readings observed at the BIO pier throughout the test agreed to within ± 0.1 mgal.



Drift of Askania Gravimeter

Period	Drift (mgal/day)
October 7 - October 14	−0.6
October 14 - October 22	0
October 22 - November 2	+1.3

Figure 2.
Gravity base-station map—Halifax, Nova Scotia.

2.1.2 *Observed error*

The gravimeter records were each read at intervals of one minute and entered, together with time, on punch cards. A digital computer then used this input to obtain for each minute, the mean of 11 adjacent readings. This smoothed gravimeter reading G(t) was used for all subsequent calculations. It is related to the actual recorded values by:

$$G(T) = \left[\frac{1}{10}\left(\frac{R(T-5)}{2} + R(T-4) + \ldots R(T+4) + \frac{R(T+5)}{2}\right)\right] \quad (4)$$

where R(T-C) is the recorded gravimeter reading at T minus C minutes. This smoothing does not represent optimum filtering of the gravimeter data but was chosen because it is easy to apply manually to short sections of record for comparison purposes. The results, when a near-optimum bell-shaped weighting function was used, were found to be about 30 per cent less 'noisy'.

Decca readings were logged every five minutes and converted to geographical coordinates (Brunavs, 1963) to locate the position on the range line and to determine average speed and course. Corrections for the vertical component of the Coriolis acceleration (Eötvös effect) were determined each five minutes from a weighted mean of the easterly component of speed during the intervals T-10 to T (weight one) and T-5 to T+5 (weight two). A small term proportional to the square of the ship's speed was added to this correction to account for the vertical component of centrifugal acceleration.

Throughout the discussion of results to follow, reference is made to 'rough' or 'disturbed' records. Examples of records that would ordinarily fall into this classification are presented in Figures 3 and 4. Figure 3 shows the Askania enograph record for runs nos. 31, 32 and 33, while Figure 4 shows the LaCoste gravimeter record (lower trace) and the long-period horizontal acceleration records (two upper traces) for run no. 33. LaCoste run no. 33 was considered partially readable, but the preceding runs, nos. 31 and 32, were more disturbed and were considered entirely unreadable. Much of the disturbance evident throughout the Askania runs can be attributed to cross-coupling effect. The LaCoste records are disturbed frequently by large long-period accelerations, which are probably due to the nonlinear response of the gravimeter system to both vertical and horizontal accelerations. (This is discussed further in Part 3.) The trace of calm or undisturbed records is smooth and in a few cases almost perfectly straight throughout the run.

2.1.3 *Accelerometer records*

The magnetic tape records of vertical and horizontal accelerations were played back at high speed into an analogue computer adjusted to determine rms acceleration. The analogue computer was also used to derive the error due to cross-coupling effect by simulation of the gravimeter-beam motion and then multiplication by the surge acceleration. The nonlinear-function generators used for these operations were Douglas Quadratrons (Douglas Aircraft Co.) having a basic squaring accuracy of 0.2 per cent; otherwise the circuit techniques were conventional. Power-spectrum analysis of the acceleration records was done by the Analysis Section of the National Research Council. An analogue technique was used with tape loops formed from 15-minute sections of each run.

2.2 Data presentation

The experimental results are shown on the computer print-out sheets that follow this section. The methods used to present these data are outlined here.

2.2.1 *Observed errors*

The basic results presented for each run are the observed errors in mgal for each gravimeter at five-minute intervals. The columns denoted by L refer to LaCoste gravimeter errors while A denotes Askania gravimeter errors. The six pairs of columns correspond to six different delays assumed for the gravimeters. For example, the observed errors under the heading L(+3) were computed by using the smoothed gravimeter readings G(T+3) rather than G(T); in this case the gravimeter was assumed to have a delay in response of three minutes. The columns L(−1) and A(−1) assume an advance of one minute and are shown for comparison.

2.2.2 *Navigation*

Also presented as a function of time are the columns denoted by EOT, RANGE, SPD and COURSE. These are respectively: the Eötvös correction in milligals, the four least significant digits of the range gravity, the average ship's speed in knots and the average course in degrees. Shown between brackets in the range-gravity column are numbers relating to the position on the range line. As each of the two gravity range lines coincides with Decca lanes, only the number of an intersecting lane is required to define a position. Each lane is identified by a letter of the alphabet and a number between 30 and 80. The first digit within the brackets refers to the lane letter according to the scheme: 1=D, 2=E, 3=F and 4=G. The next two digits are the lane number, and the fourth digit, which is either 1 or 2, locates the nearest half lane. Thus (3521) refers to the intersecting Decca lane F 52.00 ±0.25, while (3522) refers to F 52.50 ±0.25. A lane width corresponds to 0.7 and 0.4 miles for the north-south and east-west range lines respectively.

2.2.3 *Statistics*

For each column of gravity data the mean, the standard deviation and the root mean square are given. Also presented are correlation coefficients determined between

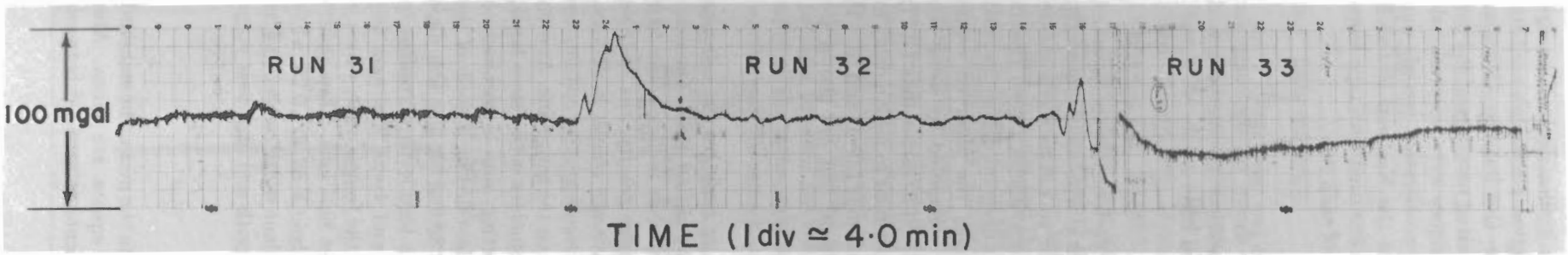


Figure 3. Typical 'disturbed' Askania gravimeter record.

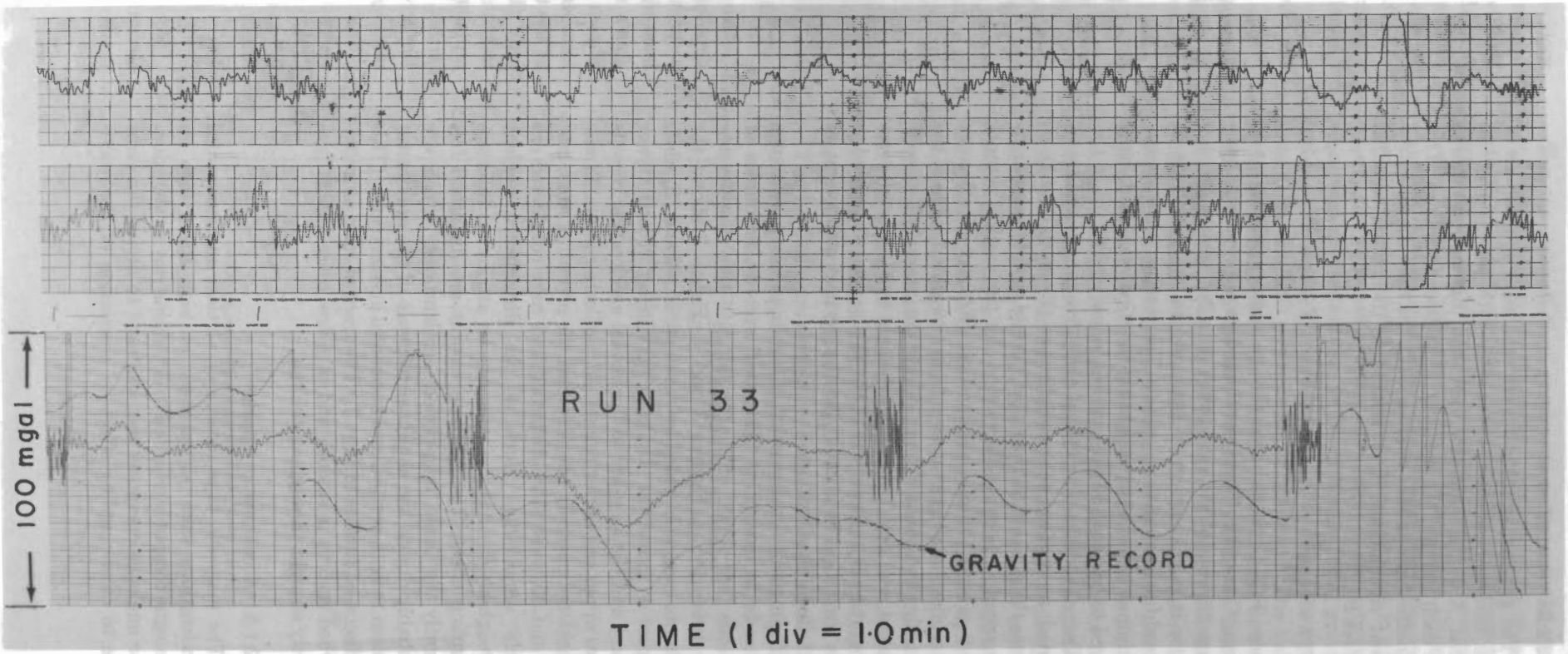


Figure 4. Typical 'disturbed' LaCoste gravimeter record.

the LaCoste gravimeter errors and, in order of presentation, the Askania gravimeter errors, the Eötvös effect, the range gravity, and the ship's course. On the line titled CORR A, similar determinations are made, and they are based on the Askania gravimeter errors. The slope referred to on the CORR L line is that of the straight line that most nearly defines the LaCoste errors as a function of the Askania errors.

The final three lines of data are intended to show the number of observed errors, L(T) and A(T), falling within one-mgal intervals throughout the range −10.5 to +10.5 mgal. Each interval is centred on the error indicated on the first line; LB and UB are the lower and upper bounds and refer to errors of less than −10.5 and greater than +10.5, respectively, in milligals.

2.2.4 *Accelerations*

The rms accelerations along the vertical and horizontal axes are shown in gals on the line titled ACC. Surge and sway refer to the horizontal acceleration experienced in the fore-aft and athwartship planes respectively. Spectral data are shown below this on the line titled 'spectra'. The power spectrum for each of the three motions consisted generally of a single, more or less well defined peak, which is described here by its centre frequency (given in terms of period) and its half-power bandwidth in cycles per second.

2.2.5 *Notes*

Gravimeter errors missing at the beginning or end of a run or throughout the run are given the value 0.0. Except where it is noted otherwise, these missing values are due to faulty data-processing techniques rather than to gravimeter faults. They can be distinguished from zero observed errors because they occur in all six columns.

For some runs the remark NAV ADJUSTED appears in the data notes at the top of the page. As some of the Decca observations for these runs were either missing or otherwise unusable, an alternative technique was used to determine Eötvös correction and range position. The ship's course recorder, controlled by the master gyroscope, was used to supplement the Decca information that was available, and there is probably little degradation in navigation accuracy.

2.3 *Numerical data*

See the following pages.

SYSTEM NO E3 01 07 PROD OF OCT 27/64

SEA GRAVIMETER RELIABILITY TEST, OCTOBER 1963

OBSERVED ERRORS

DR. B. LONCAREVIC

BEDFORD INSTITUTE OF OCEANOGRAPHY
MARINE SCIENCES BRANCH
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

MR. D. R. BOWER

GRAVITY DIVISION
OBSERVATORIES BRANCH
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 1 BAFFIN CRUISE,OCT 1963

LACOSTE RECORD NORMAL BUT NAV DATA MISSING. OCT 7
NO ASKANIA RESULTS DUE OPERATIONAL TROUBLES, ADJUSTMENTS BEING MADE. SERVO OFF
NO ACCELERATION DATA DUE TROUBLE WITH NRC PLATFORM.

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
9999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0(0)	0.0	0.0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 2 BAFFIN CRUISE, OCT 1963

LACOSTE RECORD ROUGH BUT READABLE. OCT 7
NO ASKANIA RESULTS DUE OPERATIONAL TROUBLES, ADJUSTMENTS BEING MADE. SERVO OFF
NO ACCELERATION DATA DUE TROUBLE WITH NRC PLATFORM.

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1915	-10.0	0.0	-9.6	0.0	-9.7	0.0	-9.0	0.0	-8.3	0.0	-8.0	0.0	5.1	508.1(4312)	13.3	2.5
1920	-7.4	0.0	-7.4	0.0	-7.4	0.0	-6.9	0.0	-6.0	0.0	-4.9	0.0	5.4	507.7(4302)	12.8	4.5
1925	-.9	0.0	-1.7	0.0	-.6	0.0	-.5	0.0	-.8	0.0	-1.3	0.0	8.5	507.7(3471)	12.4	7.8
1930	-3.4	0.0	-2.9	0.0	-4.4	0.0	-5.8	0.0	-7.1	0.0	-7.9	0.0	7.4	508.1(3461)	12.5	4.7
1935	-10.5	0.0	-10.0	0.0	-10.7	0.0	-10.4	0.0	-9.5	0.0	-8.2	0.0	6.7	509.6(3442)	13.1	5.0
1940	-7.1	0.0	-8.8	0.0	-4.9	0.0	-2.7	0.0	-.9	0.0	.1	0.0	6.6	510.1(3432)	12.8	4.8
1945	-.2	0.0	-.6	0.0	-.1	0.0	-.2	0.0	-.4	0.0	-.6	0.0	6.4	510.5(3421)	12.3	4.9
1950	.1	0.0	.3	0.0	0.0	0.0	0.0	0.0	.1	0.0	.1	0.0	6.2	509.4(3411)	12.0	4.9
1955	-.6	0.0	-.5	0.0	-.8	0.0	-1.1	0.0	-1.7	0.0	-2.3	0.0	5.5	509.3(3392)	12.8	3.6
2000	-2.5	0.0	-1.9	0.0	-3.1	0.0	-3.6	0.0	-4.0	0.0	-4.1	0.0	6.0	509.4(3381)	14.0	4.2
2005	-3.2	0.0	-3.1	0.0	-3.1	0.0	-2.7	0.0	-1.8	0.0	-.8	0.0	6.8	509.3(3371)	12.8	5.3
2010	-.5	0.0	-1.2	0.0	-.2	0.0	0.0	0.0	.1	0.0	.2	0.0	6.4	509.2(3352)	13.0	4.3
2015	.1	0.0	-.2	0.0	.4	0.0	.6	0.0	.7	0.0	.9	0.0	5.9	509.2(3341)	13.3	4.1
2020	0.0	0.0	-.6	0.0	.6	0.0	1.2	0.0	1.6	0.0	1.8	0.0	5.5	510.2(3322)	12.6	3.9
2025	3.6	0.0	3.7	0.0	3.6	0.0	3.5	0.0	3.3	0.0	3.3	0.0	7.4	510.2(3311)	19.9	3.3
MEAN	-2.8	0.0	-2.9	0.0	-2.6	0.0	-2.5	0.0	-2.3	0.0	-2.1	0.0	6.3	509.2	13.3	4.5
DEV	3.9	0.0	3.9	0.0	3.9	0.0	3.8	0.0	3.6	0.0	3.5	0.0	.8		1.8	1.1
RMS	4.9	0.0	4.9	0.0	4.8	0.0	4.6	0.0	4.3	0.0	4.1	0.0				
CORR L		0.00(SLOPE= 0.00)											.26	.34		.06
CORR A													0.00	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	2	0	0	2	0	0	0	2	1	2	5	0	0	0	1	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 3 BAFFIN CRUISE, OCT 1963

LACOSTE RECORD ROUGH BUT READABLE.
NO ASKANIA RESULTS DUE FREQUENT LARGE COURSE CHANGES DISTURBING PLATFORM.
NO ACCELERATION DATA DUE TROUBLE WITH NRC PLATFORM.

OCT 8
SERVO ON

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
215	.1	0.0	.3	0.0	0.0	0.0	-.2	0.0	-.7	0.0	-1.1	0.0	4.9	508.1(3461)	10.8	4.2
220	-2.7	0.0	-2.1	0.0	-3.2	0.0	-3.4	0.0	-3.4	0.0	-3.2	0.0	4.9	509.2(3451)	10.4	4.7
225	-3.8	0.0	-4.0	0.0	-3.5	0.0	-3.3	0.0	-3.3	0.0	-3.8	0.0	4.9	509.9(3441)	10.2	4.5
230	-4.8	0.0	-4.0	0.0	-5.8	0.0	-6.6	0.0	-7.2	0.0	-7.7	0.0	5.0	510.3(3431)	10.9	4.5
235	-7.9	0.0	-7.5	0.0	-8.0	0.0	-8.0	0.0	-7.9	0.0	-7.4	0.0	5.5	510.5(3421)	10.8	5.0
240	-4.9	0.0	-5.9	0.0	-3.2	0.0	-1.4	0.0	.1	0.0	1.2	0.0	5.9	509.4(3411)	10.2	5.8
245	1.4	0.0	.7	0.0	2.3	0.0	2.9	0.0	2.9	0.0	2.8	0.0	5.3	509.3(3392)	9.6	5.0
250	.3	0.0	.4	0.0	.1	0.0	-.5	0.0	-1.7	0.0	-3.1	0.0	3.0	509.4(3382)	9.6	1.8
255	-4.8	0.0	-3.7	0.0	-5.6	0.0	-5.5	0.0	-5.0	0.0	-4.8	0.0	2.4	509.4(3381)	10.4	2.1
300	-2.5	0.0	-2.1	0.0	-3.3	0.0	-3.9	0.0	-3.9	0.0	-3.3	0.0	4.8	509.2(3362)	10.3	5.7
305	-2.4	0.0	-2.9	0.0	-2.6	0.0	-3.4	0.0	-4.1	0.0	-4.3	0.0	5.3	509.2(3352)	8.4	5.9
310	-3.3	0.0	-3.5	0.0	-3.0	0.0	-2.7	0.0	-2.7	0.0	-2.8	0.0	5.9	509.0(3342)	10.5	5.9
315	-3.8	0.0	-3.5	0.0	-4.6	0.0	-5.6	0.0	-6.3	0.0	-6.3	0.0	5.8	509.7(3332)	10.7	5.1
320	-7.7	0.0	-8.2	0.0	-7.0	0.0	-6.5	0.0	-6.1	0.0	-5.9	0.0	4.5	510.3(3321)	10.3	3.7
325	-5.7	0.0	-6.0	0.0	-5.1	0.0	-4.2	0.0	-3.5	0.0	-3.2	0.0	4.4	510.2(3311)	10.3	4.2
330	-3.2	0.0	-3.2	0.0	-3.3	0.0	-3.4	0.0	-3.2	0.0	-3.0	0.0	4.1	510.0(2481)	10.5	3.5
335	-3.2	0.0	-3.3	0.0	-3.1	0.0	-3.8	0.0	-5.2	0.0	-6.9	0.0	3.5	509.6(2462)	10.5	2.8
340	-8.2	0.0	-6.6	0.0	-9.2	0.0	-9.4	0.0	-9.0	0.0	-8.5	0.0	3.5	509.4(2452)	8.4	4.3
345	-8.4	0.0	-8.6	0.0	-8.6	0.0	-8.2	0.0	-7.1	0.0	-6.0	0.0	3.2	509.1(2442)	6.3	4.8
350	-3.1	0.0	-4.3	0.0	-2.0	0.0	-1.7	0.0	-2.4	0.0	-3.5	0.0	4.6	508.9(2441)	10.7	4.7
355	-3.2	0.0	-2.5	0.0	-2.9	0.0	-2.0	0.0	-.8	0.0	.3	0.0	5.1	508.4(2421)	14.9	2.8
400	-1.4	0.0	-2.0	0.0	-1.4	0.0	-1.6	0.0	-1.7	0.0	-1.6	0.0	3.3	508.8(2402)	13.0	1.6
405	0.0	0.0	.1	0.0	-.4	0.0	-1.1	0.0	-1.9	0.0	-2.7	0.0	4.3	508.2(2391)	11.3	4.4
410	-1.4	0.0	-.6	0.0	-1.9	0.0	-2.3	0.0	-2.7	0.0	-3.2	0.0	5.5	507.3(2381)	10.9	5.1
415	-3.0	0.0	-2.3	0.0	-3.7	0.0	-4.0	0.0	-4.2	0.0	-4.3	0.0	4.5	505.3(2362)	10.8	3.3
420	-5.5	0.0	-5.3	0.0	-5.8	0.0	-6.1	0.0	-6.0	0.0	-5.6	0.0	2.9	504.7(2351)	10.6	1.9
425	-5.0	0.0	-5.6	0.0	-4.7	0.0	-4.9	0.0	-5.8	0.0	-6.8	0.0	2.7	504.5(2341)	10.5	2.4
430	-5.8	0.0	-5.2	0.0	-5.8	0.0	-5.4	0.0	-4.8	0.0	-3.9	0.0	4.0	504.3(2322)	10.4	4.2
435	-2.1	0.0	-3.0	0.0	-1.2	0.0	-.1	0.0	1.3	0.0	2.8	0.0	4.8	504.1(2312)	9.8	4.8
MEAN	-3.6	0.0	-3.6	0.0	-3.6	0.0	-3.6	0.0	-3.6	0.0	-3.6	0.0	4.4	508.4	10.4	4.0
DEV	2.5	0.0	2.4	0.0	2.6	0.0	2.6	0.0	2.7	0.0	2.8	0.0	.9		1.3	1.2
RMS	4.4	0.0	4.4	0.0	4.5	0.0	4.5	0.0	4.6	0.0	4.6	0.0				
CORR L		0.00(SLOPE= 0.00)											.19	0.00		-.02
CORR A													0.00	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	4	0	2	5	2	7	3	2	3	1	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 4 BAFFIN CRUISE,OCT 1963

LACOSTE RECORD TOO DISTURBED TOO READ.
NO ASKANIA RESULTS DUE FREQUENT LARGE COURSE CHANGES DISTURBING PLATFORM.
NO ACCELERATION DATA DUE TROUBLE WITH NRC PLATFORM.

OCT 8
SERVO ON

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
9999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0(0)	0.0	0.0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 5 BAFFIN CRUISE,OCT 1963

TRACK-094 KNOTS 004 DEGS WIND- KNOTS DEGS ACC- VERTICAL= 17 KMGL SURGE= 12 KMGL SWAY= 10 KMGL
LACOSTE RECORD NORMAL. OCT 8
ASKANIA RECORD DISTURBED DUE FREQUENT LARGE COURSE CHANGES BUT READABLE. SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.7SECS,WIDTH=.10CPS.SURGE=10.2SECS,.04CPS.SWAY=14.3SECS,.07CPS.CROSS.COUP.=- 3.0 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
930	3.1	-8.2	3.7	-8.3	2.7	-8.3	2.5	-8.3	2.1	-8.4	1.4	-8.4	5.2	507.7(3471)	9.5	5.7
935	.6	-8.3	1.5	-8.3	-.4	-8.0	-1.1	-7.6	-1.2	-7.2	-1.1	-7.0	5.7	508.1(3461)	9.9	5.7
940	-2.5	-8.5	-2.7	-8.6	-2.0	-8.4	-1.7	-8.4	-1.5	-8.5	-1.4	-8.7	5.2	509.2(3451)	9.6	5.0
945	-2.4	-10.0	-2.5	-9.8	-2.0	-10.2	-1.6	-10.5	-1.4	-10.7	-1.1	-10.7	4.7	509.9(3441)	9.1	5.0
950	-1.2	-11.0	-1.4	-11.0	-1.3	-10.8	-1.2	-10.5	-1.1	-10.2	-1.1	-9.9	4.9	510.3(3431)	9.2	5.3
955	-1.2	-9.6	-1.2	-10.0	-1.1	-9.2	-.9	-8.8	-.8	-8.6	-1.0	-8.6	4.8	510.4(3422)	9.4	4.9
1000	-1.4	-8.4	-.8	-8.4	-2.1	-8.7	-3.0	-9.2	-3.6	-9.3	-3.3	-9.3	4.7	510.1(3412)	9.4	4.9
1005	-1.8	-8.7	-2.5	-8.5	-1.4	-8.8	-1.2	-8.8	-1.1	-8.8	-.8	-8.6	4.6	509.2(3402)	9.3	4.8
1010	-.6	-8.9	-1.3	-9.1	.2	-8.6	.8	-8.2	1.1	-7.9	.8	-7.8	4.2	509.3(3392)	9.2	4.2
1015	-.4	-8.2	.3	-8.3	-.9	-8.1	-1.1	-8.4	-1.6	-9.0	-2.5	-9.6	3.8	509.4(3382)	9.2	3.9
1020	-3.2	-9.9	-2.3	-9.4	-3.6	-10.4	-3.9	-10.8	-4.7	-11.0	-5.4	-11.1	4.0	509.3(3372)	9.2	4.3
1025	-5.3	-10.7	-4.9	-10.6	-5.4	-10.9	-5.5	-10.9	-5.2	-10.8	-4.6	-10.6	4.3	509.2(3362)	9.1	4.7
1030	-4.2	-10.4	-4.6	-10.6	-3.8	-10.1	-3.4	-9.9	-2.4	-9.9	-1.5	-10.0	4.3	509.2(3352)	9.3	4.4
1035	-1.0	-9.8	-1.3	-9.8	-1.5	-9.7	-2.2	-9.4	-2.7	-8.9	-2.9	-8.5	4.3	509.0(3342)	9.4	4.4
1040	-3.7	-9.0	-3.7	-9.3	-3.6	-8.8	-3.5	-8.6	-3.4	-8.5	-3.1	-8.4	4.3	509.7(3332)	9.4	4.4
1045	-3.1	-9.1	-3.7	-9.0	-2.2	-9.0	-1.5	-8.9	-.8	-8.7	-.3	-8.4	4.2	510.2(3322)	9.5	4.2
1050	.1	-8.4	-.3	-8.4	.4	-8.3	.6	-8.3	.8	-8.2	1.0	-8.1	4.1	510.2(3312)	9.6	4.1
1055	1.4	-8.0	1.1	-8.0	1.7	-8.2	1.9	-8.7	2.1	-9.4	2.1	-10.0	4.0	510.0(3301)	9.5	4.0
1100	1.6	-10.6	1.9	-10.2	1.0	-10.9	.3	-11.3	-.5	-11.5	-1.2	-11.5	3.7	509.8(2471)	9.4	3.5
1105	-1.6	-11.1	-1.1	-11.4	-1.9	-10.7	-2.0	-10.4	-2.3	-10.1	-2.6	-9.8	3.5	509.5(2461)	9.6	3.4
1110	-2.0	-8.9	-1.9	-9.1	-1.8	-8.7	-1.6	-8.5	-1.4	-8.3	-1.1	-8.3	3.9	509.3(2451)	9.6	4.1
1115	-.4	-7.8	-.5	-7.7	-.4	-8.1	-.6	-8.4	-.8	-8.6	-.9	-8.9	4.2	508.9(2441)	9.7	4.2
1120	-.7	-8.7	-.6	-8.6	-.6	-8.9	-.5	-8.9	-.4	-9.0	-.5	-8.9	3.9	508.4(2422)	9.7	3.7
1125	-1.4	-9.6	-1.3	-9.7	-1.4	-9.3	-1.4	-9.0	-1.5	-8.7	-1.6	-8.5	3.5	508.7(2412)	9.5	3.2
1130	-2.0	-8.8	-1.8	-8.7	-2.3	-9.0	-2.7	-9.4	-3.1	-9.7	-3.3	-10.0	3.4	508.8(2402)	9.4	3.4
1135	-2.9	-9.9	-2.9	-9.6	-2.8	-10.0	-2.8	-10.1	-2.9	-10.3	-3.0	-10.6	3.4	508.5(2392)	9.4	3.4
1140	-1.9	-9.5	-1.7	-9.3	-2.2	-9.6	-2.4	-9.5	-2.4	-9.5	-2.5	-9.5	3.5	507.3(2381)	9.5	3.6
1145	-1.4	-8.3	-1.0	-8.0	-2.0	-8.7	-2.3	-9.1	-2.3	-9.2	-2.1	-9.1	3.5	505.8(2371)	9.5	3.5
1150	-1.5	-8.5	-1.7	-8.7	-1.0	-8.1	-.5	-7.8	0.0	-7.6	.1	-7.6	3.1	505.0(2361)	9.4	2.8
1155	.4	0.0	.4	0.0	.3	0.0	.2	0.0	-.6	0.0	-2.6	0.0	3.1	504.7(2351)	9.6	3.1
MEAN	-1.3	-9.2	-1.2	-9.1	-1.3	-9.1	-1.4	-9.1	-1.4	-9.1	-1.5	-9.1	4.1	508.9	9.4	4.2
DEV	1.7	.9	1.8	.9	1.6	.9	1.6	.9	1.6	1.0	1.6	1.0	.6		.1	.7
RMS	2.2	9.2	2.2	9.2	2.1	9.2	2.2	9.2	2.2	9.2	2.3	9.2				
CORR L		.42(SLOPE= .78)											.09	0.00		.05
CORR A													.11	-.28		.05

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	1	2	3	7	9	4	2	1	1	0	0	0	0	0	0	0	0
NUMBER ASKANIA	4	7	8	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 6 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS 184 DEGS WIND- KNOTS DEGS ACC- VERTICAL= 38 KMGL SURGE= 07 KMGL SWAY= 11 KMGL
LACOSTE RECORD ROUGH BUT READABLE. OCT 8
ASKANIA RECORD DISTURBED DUE FREQUENT LARGE COURSE CHANGES BUT READABLE SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.7SECS,WIDTH=.04CPS.SURGE= 6.2SECS,.04CPS.SWAY= 5.9SECS,.08CPS. CROSS.COUP=+ 4.0 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1730	0.0	-4.9	0.0	-4.8	0.0	-4.8	0.0	-4.5	0.0	-4.2	0.0	-3.8	-2.3	507.9(2382)	10.1	182.7
1735	0.0	-4.5	0.0	-4.9	0.0	-4.0	0.0	-3.5	0.0	-2.9	0.0	-2.4	-2.8	508.5(2392)	10.0	183.6
1740	0.0	-2.6	0.0	-2.9	0.0	-2.6	0.0	-2.8	0.0	-3.0	0.0	-3.1	-3.0	508.8(2411)	9.8	183.6
1745	0.0	-2.5	0.0	-2.3	0.0	-2.7	0.0	-3.0	0.0	-3.2	0.0	-3.2	-2.5	508.4(2421)	10.1	182.9
1750	0.0	-3.8	0.0	-3.7	0.0	-3.7	0.0	-3.5	0.0	-3.2	0.0	-3.1	-2.8	508.6(2431)	10.5	183.5
1755	0.0	-3.8	0.0	-4.0	0.0	-3.8	0.0	-4.0	0.0	-4.0	0.0	-4.0	-3.3	509.1(2442)	10.2	183.9
1800	0.0	-4.3	0.0	-4.3	0.0	-4.3	0.0	-4.4	0.0	-4.6	0.0	-4.7	-3.2	509.4(2452)	10.0	183.7
1805	-7.9	-5.0	-6.9	-4.9	-8.0	-4.8	-7.4	-4.3	-7.2	-3.9	-7.3	-3.6	-3.3	509.6(2462)	10.3	183.9
1810	-7.8	-4.1	-7.8	-4.1	-7.9	-4.3	-7.7	-4.7	-7.3	-4.9	-7.7	-4.8	-3.3	510.0(2481)	10.2	183.8
1815	-9.0	-5.1	-7.8	-4.9	-10.5	-5.4	-11.6	-5.7	-11.7	-5.9	-10.7	-6.1	-3.3	510.2(3311)	10.0	183.9
1820	-9.2	-5.9	-10.8	-6.2	-7.5	-5.3	-6.0	-4.6	-4.8	-4.1	-3.3	-4.0	-3.2	510.3(3321)	10.2	183.7
1825	-1.0	-3.6	-3.0	-3.7	.6	-3.6	1.6	-3.6	2.0	-3.3	2.3	-3.0	-3.2	510.1(3331)	10.3	183.7
1830	3.0	-2.3	3.0	-2.3	3.0	-2.4	3.2	-2.6	3.0	-2.9	2.2	-3.1	-3.5	509.0(3342)	9.9	184.4
1835	.6	-3.6	1.7	-3.6	-.4	-3.5	-.8	-3.3	-.7	-3.4	-.7	-3.7	-3.9	509.2(3352)	9.8	184.7
1840	-1.2	-4.0	-.8	-3.8	-2.1	-4.1	-3.6	-4.1	-4.6	-4.1	-4.3	-3.9	-4.0	509.2(3362)	10.0	184.6
1845	-3.2	-3.5	-4.2	-3.8	-1.8	-2.9	-.4	-2.4	.6	-2.1	.8	-2.3	-3.7	509.3(3372)	10.1	184.2
1850	1.2	-2.3	1.1	-2.0	1.3	-2.4	1.1	-2.3	.8	-2.0	.6	-1.8	-3.4	509.4(3382)	10.4	183.7
1855	-.1	-2.4	.2	-2.2	-.7	-3.0	-1.7	-3.9	-2.9	-4.7	-3.6	-4.8	-3.8	509.3(3392)	10.5	184.6
1900	-4.5	-5.2	-4.2	-5.4	-4.4	-5.0	-3.7	-5.0	-2.7	-5.0	-2.0	-5.2	-4.3	509.4(3411)	10.5	184.9
1905	-2.4	-5.8	-2.6	-5.8	-2.3	-5.6	-2.6	-5.0	-3.6	-4.3	-5.5	-3.5	-3.8	510.5(3421)	10.3	184.0
1910	-7.2	-2.7	-5.3	-3.3	-7.2	-2.5	-7.2	-2.5	-7.2	-2.5	-7.2	-2.3	-3.9	510.3(3431)	10.5	184.5
1915	0.0	-2.2	0.0	-2.4	0.0	-2.3	0.0	-2.4	0.0	-2.7	0.0	-3.1	-4.4	509.9(3441)	10.7	184.9
1920	0.0	-2.9	0.0	-2.4	0.0	-3.2	0.0	-3.2	0.0	-3.1	0.0	-3.1	-4.4	509.2(3451)	10.5	184.7
1925	0.0	-2.1	0.0	-2.1	0.0	-2.3	0.0	-2.7	0.0	-3.1	0.0	-3.5	-4.5	508.1(3461)	10.3	185.1
1930	0.0	-3.8	0.0	-3.1	0.0	-4.5	0.0	-5.0	0.0	-5.2	0.0	-5.2	-4.4	507.7(3471)	10.3	184.9
1935	0.0	-4.7	0.0	-4.8	0.0	-4.1	0.0	-3.2	0.0	-2.4	0.0	-1.9	-4.1	507.6(3481)	10.5	184.5
1940	0.0	-1.6	0.0	-2.0	0.0	-1.6	0.0	-1.7	0.0	-1.8	0.0	-2.2	-4.1	507.8(4311)	10.4	184.6
1945	0.0	-4.1	0.0	-3.4	0.0	-5.0	0.0	-5.9	0.0	-6.3	0.0	-6.2	-4.5	508.5(4321)	10.1	185.4
MEAN	-3.4	-3.6	-3.3	-3.6	-3.4	-3.7	-3.3	-3.7	-3.3	-3.6	-3.3	-3.6	-3.6	509.1	10.2	184.1
DEV	3.9	1.1	3.9	1.1	4.0	1.0	4.0	1.0	4.0	1.1	3.9	1.1	.6		.2	.6
RMS	5.3	3.9	5.2	3.9	5.3	3.9	5.3	3.9	5.2	3.8	5.1	3.8				
CORR L		.63(SLOPE= 2.05)											-.28	0.00		.33
CORR A													-.21	0.00		.24

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	2	2	1	0	0	1	1	1	2	1	2	0	1	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	2	5	10	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 7 BAFFIN CRUISE,OCT 1963

TRACK-099 KNOTS 004 DEGS WIND- KNOTS DEGS ACC- VERTICAL= 15 KMGL SURGE= 07 KMGL SWAY= 09 KMGL
LACOSTE RECORD NORML OCT 8
ASKANIA RECORD DISTURBED DUE FREQUENT LARGE COURSE CHANGES BUT READABLE. SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.5SECS,WIDTH=.11CPS.SURGE=10.0SECS,.04CPS.SWAY= 9.1SECS,.05CPS. CROSS COUP=- 2.0 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE		SPD	COURSE
2040	2.8	-9.8	3.3	-9.2	2.2	-10.3	1.7	-10.3	1.2	-10.3	.8	-10.2	5.7	508.1(	1)	0.0	0.0
2045	.7	-9.9	.9	-10.1	.7	-9.7	.8	-9.4	.7	-9.0	.8	-8.4	5.4	507.7(	0)	0.0	0.0
2050	1.2	-7.6	.9	-8.3	1.7	-6.9	2.3	-6.3	2.8	-5.8	3.4	-5.5	5.2	507.4(	0)	0.0	0.0
2055	3.5	-6.0	2.9	-6.0	4.0	-5.7	4.5	-5.3	5.0	-5.2	5.2	-5.3	5.1	507.8(	0)	0.0	0.0
2100	4.6	-6.1	4.7	-5.8	4.3	-6.4	4.1	-6.7	3.9	-7.0	3.7	-7.4	5.0	508.2(	0)	0.0	0.0
2105	2.4	-8.6	2.9	-8.2	1.8	-8.9	1.2	-9.3	.7	-9.3	.6	-8.9	5.0	509.0(	0)	0.0	0.0
2110	.1	-9.5	-.2	-9.7	.6	-9.4	.9	-9.4	1.0	-9.0	1.2	-8.5	5.0	509.8(	0)	0.0	0.0
2115	1.3	-8.5	.9	-8.8	1.5	-8.4	1.7	-8.6	1.8	-9.0	1.6	-9.6	5.0	510.1(	0)	0.0	0.0
2120	.7	-10.7	1.3	-9.9	0.0	-11.3	-.7	-11.5	-1.2	-11.5	-1.4	-11.7	5.0	510.4(	0)	0.0	0.0
2125	-.5	-11.1	-.7	-11.0	-.2	-11.0	.1	-10.6	.5	-10.2	.9	-9.6	5.2	510.0(	0)	0.0	0.0
2130	2.2	-8.1	1.5	-9.0	2.9	-7.2	3.7	-6.7	4.2	-6.8	4.3	-6.8	5.5	509.6(	0)	0.0	0.0
2135	4.3	-6.6	4.4	-6.7	4.2	-6.4	4.2	-6.3	4.1	-6.4	3.9	-6.5	5.5	509.5(	0)	0.0	0.0
2140	3.7	-6.7	3.9	-6.5	3.5	-6.8	3.3	-7.0	3.0	-7.3	2.6	-7.7	5.5	509.5(	0)	0.0	0.0
2145	1.5	-8.8	1.8	-8.5	1.2	-8.9	.9	-9.4	.6	-10.3	0.0	-11.1	4.5	509.3(	0)	0.0	0.0
2150	-1.5	-12.7	-.9	-12.0	-2.2	-13.3	-2.6	-13.4	-2.8	-13.3	-2.7	-12.9	3.5	509.2(	0)	0.0	0.0
2155	-2.9	-12.8	-2.9	-13.1	-2.9	-12.9	-3.0	-12.4	-2.6	-10.9	-1.6	-9.5	3.6	509.5(	0)	0.0	0.0
2200	-.9	-8.8	-1.8	-9.7	-.1	-8.3	.5	-7.9	1.0	-7.6	1.2	-7.4	3.7	509.8(	0)	0.0	0.0
2205	1.3	-7.6	1.0	-7.6	1.5	-7.5	1.7	-7.6	1.7	-8.2	1.2	-9.0	3.7	510.0(	0)	0.0	0.0
2210	.5	-9.8	.9	-9.3	.4	-9.9	.2	-9.9	.2	-9.9	.3	-9.7	3.7	510.3(	0)	0.0	0.0
2215	.7	-9.1	.5	-9.5	1.0	-8.6	1.3	-8.4	1.5	-8.3	1.6	-8.1	3.7	510.1(	0)	0.0	0.0
2220	2.0	-7.7	1.8	-7.9	2.3	-7.6	2.5	-7.7	2.5	-7.9	2.4	-8.3	3.7	509.9(	0)	0.0	0.0
2225	2.5	-8.3	2.9	-7.8	2.1	-8.8	1.8	-9.2	1.6	-9.4	1.1	-9.6	3.7	509.4(	0)	0.0	0.0
2230	1.1	-9.4	1.5	-9.2	.6	-9.7	.2	-9.9	-.1	-10.0	-.1	-9.9	3.7	509.0(	0)	0.0	0.0
2235	.4	-9.6	.1	-9.7	.5	-9.5	.5	-9.4	.5	-9.3	.6	-9.1	3.7	508.8(	0)	0.0	0.0
2240	.8	-8.6	.7	-9.0	1.0	-8.2	1.2	-7.8	1.5	-7.5	1.6	-7.4	3.7	508.7(	0)	0.0	0.0
2245	1.4	-7.5	1.6	-7.4	1.2	-7.5	1.1	-7.5	.9	-7.5	.8	-7.4	3.7	508.7(	0)	0.0	0.0
2250	.7	-7.4	.8	-7.4	.6	-7.7	.4	-8.4	.2	-9.0	.1	-9.3	3.7	508.7(	0)	0.0	0.0
2255	1.0	-9.2	1.0	-8.4	1.1	-9.9	1.4	-10.4	1.6	-11.0	1.8	-11.9	3.4	507.5(	0)	0.0	0.0
2300	2.5	-12.1	2.6	-11.1	2.2	-12.9	1.8	-13.1	1.5	-13.0	1.4	-12.7	3.1	506.4(	0)	0.0	0.0
2305	2.4	-11.3	2.1	-12.0	2.9	-10.3	3.5	-10.1	3.9	-10.9	4.4	-11.0	3.1	505.7(	0)	0.0	0.0
2310	6.0	-9.9	5.1	-10.3	7.1	-9.6	8.2	-9.2	9.0	-9.4	9.3	-9.9	3.1	505.0(	0)	0.0	0.0
2315	9.3	-10.0	9.6	-9.6	8.7	-10.7	7.8	-10.8	7.0	-9.9	6.3	-9.1	3.1	504.7(	0)	0.0	0.0
2320	5.7	-8.7	6.6	-8.8	4.7	-8.8	3.8	-9.1	3.1	-9.3	2.4	-9.7	3.1	504.4(	0)	0.0	0.0
2325	1.9	-8.6	2.6	-9.4	1.4	-7.9	1.0	-7.5	.8	-7.3	.6	-7.2	3.0	504.2(	0)	0.0	0.0
MEAN	1.8	-9.0	1.8	-9.0	1.8	-9.0	1.8	-9.0	1.8	-9.0	1.7	-9.0	4.1	508.4		0.0	0.0
DEV	2.2	1.6	2.3	1.6	2.2	1.8	2.2	1.8	2.3	1.8	2.2	1.8	.8			0.0	0.0
RMS	2.9	9.2	3.0	9.2	2.9	9.2	2.9	9.2	2.9	9.2	2.9	9.2					
CORR L		.36(SLOPE= .48)											-.04	-.01			0.00
CORR A													.35	.10			0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	1	0	2	3	12	6	3	3	1	2	0	0	1	0	0
NUMBER ASKANIA	6	6	10	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 8 BAFFIN CRUISE,OCT 1963

TRACK-107 KNOTS 184 DEGS WIND- KNOTS DEGS ACC- VERTICAL= 34 KMGL SURGE= 06 KMGL SWAY= 10 KMGL
LACOSTE RECORD ROUGH BUT READABLE. OCT 9
ASKANIA NOT READ, VERY DISTURBED DUE LARGE COURSE CHANGES SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.5SECS,WIDTH=.04CPS.SURGE= 5.9SECS,.06CPS.SWAY= 5.9SECS,.05CPS. CROSS. COUP+ 2.3 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
30	-.1	0.0	.4	0.0	-.5	0.0	-1.0	0.0	-1.8	0.0	-2.5	0.0	-4.9	504.6(2342)	10.8	185.4
35	-1.2	0.0	-.9	0.0	-1.3	0.0	-1.5	0.0	-1.7	0.0	-1.8	0.0	-2.9	505.0(2361)	10.8	182.2
40	-5.7	0.0	-5.4	0.0	-6.1	0.0	-6.7	0.0	-8.6	0.0	-12.4	0.0	-5.7	505.8(2371)	10.1	188.4
45	-14.6	0.0	-10.5	0.0	-17.5	0.0	-18.5	0.0	-18.2	0.0	-17.4	0.0	-1.6	507.9(2382)	9.3	178.9
50	-12.3	0.0	-13.6	0.0	-10.6	0.0	-8.6	0.0	-5.2	0.0	-.2	0.0	2.4	508.2(2391)	9.9	177.3
55	-1.9	0.0	-6.8	0.0	1.5	0.0	3.2	0.0	3.5	0.0	3.1	0.0	-3.6	508.8(2402)	10.9	187.1
100	2.1	0.0	3.2	0.0	.5	0.0	-1.7	0.0	-4.2	0.0	-6.5	0.0	-3.9	508.4(2421)	11.0	182.7
105	-6.6	0.0	-4.9	0.0	-7.3	0.0	-7.4	0.0	-6.9	0.0	-6.2	0.0	-2.0	508.6(2431)	11.3	182.2
110	-7.9	0.0	-8.6	0.0	-6.9	0.0	-5.5	0.0	-3.9	0.0	-2.2	0.0	-4.0	509.1(2442)	11.0	185.3
115	-.9	0.0	-1.6	0.0	-1.1	0.0	-1.7	0.0	-2.2	0.0	-2.7	0.0	-3.1	509.4(2452)	10.8	182.5
120	-2.1	0.0	-2.0	0.0	-1.8	0.0	-1.3	0.0	-1.6	0.0	-2.4	0.0	-1.9	509.8(2471)	10.7	182.3
125	-6.5	0.0	-6.1	0.0	-6.2	0.0	-5.7	0.0	-5.3	0.0	-5.2	0.0	-5.4	510.0(3301)	10.8	187.5
130	-5.4	0.0	-4.9	0.0	-7.8	0.0	-13.4	0.0	-21.1	0.0	-27.8	0.0	-5.0	510.2(3312)	11.2	184.1
135	-28.9	0.0	-24.6	0.0	-32.0	0.0	-34.8	0.0	-36.7	0.0	-37.3	0.0	-1.8	510.2(3322)	10.7	181.1
140	-37.7	0.0	-38.3	0.0	-35.4	0.0	-29.7	0.0	-20.9	0.0	-13.2	0.0	-3.2	509.7(3332)	10.2	185.0
145	-9.8	0.0	-13.3	0.0	-8.6	0.0	-7.6	0.0	-7.1	0.0	-7.5	0.0	-3.9	509.1(3351)	10.5	184.1
150	-7.1	0.0	-6.5	0.0	-7.8	0.0	-8.9	0.0	-10.5	0.0	-11.2	0.0	-2.9	509.2(3361)	11.1	182.9
155	-11.7	0.0	-13.3	0.0	-8.7	0.0	-5.8	0.0	-3.4	0.0	-2.1	0.0	-4.8	509.3(3371)	11.3	186.1
200	-1.5	0.0	-1.8	0.0	-1.7	0.0	-1.8	0.0	-1.7	0.0	-1.6	0.0	-4.4	509.4(3382)	11.6	183.8
205	-1.3	0.0	-1.0	0.0	-1.9	0.0	-2.5	0.0	-3.0	0.0	-3.1	0.0	-4.0	509.3(3392)	11.2	184.3
210	-4.0	0.0	-4.1	0.0	-4.3	0.0	-4.3	0.0	-4.3	0.0	-4.3	0.0	-5.0	509.2(3402)	10.5	186.0
MEAN	-7.8	0.0	-7.8	0.0	-7.8	0.0	-7.8	0.0	-7.8	0.0	-7.8	0.0	-3.4	508.6	10.7	183.7
DEV	9.3	0.0	9.1	0.0	9.4	0.0	9.1	0.0	9.0	0.0	9.4	0.0	1.7		.5	2.6
RMS	12.2	0.0	12.0	0.0	12.3	0.0	12.1	0.0	11.9	0.0	12.3	0.0				
CORR L		0.00(SLOPE= 0.00)											-.29	0.00		.17
CORR A													0.00	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	5	1	0	1	2	2	1	1	0	2	4	1	0	1	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 9 BAFFIN CRUISE, OCT 1963

TRACK-094 KNOTS 004 DEGS WIND- 25 KNOTS 005 DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL

LACOSTE RECORD NORMAL. OCT 9

ASKANIA RECORD DISTURBED DUE FREQUENT LARGE COURSE CHANGES BUT READABLE. SERVO ON

NO ACCELERATION DATA.

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
400	0.0	-5.0	0.0	-5.0	0.0	-5.5	0.0	-6.7	0.0	-7.8	0.0	-7.9	5.0	507.8(4311)	8.4	5.9
405	3.3	-7.8	3.2	-8.3	3.7	-7.6	4.1	-7.6	4.3	-7.7	4.3	-7.9	4.5	507.7(4302)	8.6	4.9
410	3.5	-8.9	3.7	-8.5	3.2	-9.3	3.0	-9.1	3.0	-8.5	3.3	-8.4	3.8	507.6(3472)	9.9	3.3
415	4.3	-7.8	4.2	-7.5	4.4	-7.6	4.8	-6.9	5.3	-6.2	6.0	-5.5	4.9	507.8(3462)	9.3	6.0
420	5.0	-6.1	4.3	-7.2	5.8	-4.8	6.6	-4.1	7.0	-4.3	7.0	-4.7	4.2	508.7(3452)	8.2	4.1
425	4.7	-6.9	4.9	-6.8	4.4	-7.3	3.7	-8.1	2.9	-9.1	1.9	-10.1	2.6	509.2(3451)	8.3	2.3
430	1.5	-10.8	2.4	-9.6	.7	-12.0	-.1	-12.9	-.8	-13.1	-1.3	-13.1	3.7	509.9(3441)	9.0	4.8
435	-.4	-12.0	-.1	-11.9	-.6	-11.7	-.4	-10.7	.2	-9.5	1.1	-8.5	5.4	510.3(3431)	9.4	6.0
440	1.7	-7.9	.7	-8.9	2.6	-6.6	3.7	-5.2	4.7	-4.2	5.5	-3.3	5.2	510.5(3421)	8.6	5.7
445	5.2	-3.7	4.5	-4.3	5.6	-3.9	5.6	-4.7	5.2	-5.6	4.5	-6.3	3.8	510.1(3412)	8.9	3.4
450	4.5	-6.2	5.3	-5.5	3.7	-7.3	2.7	-8.6	1.8	-9.4	1.2	-10.0	3.6	509.2(3402)	9.5	3.8
455	1.2	-9.7	1.7	-9.5	.9	-9.5	.9	-9.1	1.0	-8.6	1.3	-8.3	4.3	509.3(3392)	9.6	4.6
500	3.0	-6.7	2.6	-7.0	3.5	-6.2	3.9	-5.9	4.1	-5.9	4.1	-5.8	5.7	509.4(3382)	13.9	4.0
505	4.5	-5.2	4.6	-5.3	4.3	-5.4	4.2	-6.0	4.0	-6.6	3.7	-6.8	5.9	509.2(3362)	13.8	3.9
510	1.9	-8.3	2.3	-8.2	1.6	-8.4	1.4	-8.6	1.3	-8.9	1.1	-9.2	4.5	509.2(3352)	8.9	4.5
515	.5	-9.7	.6	-9.7	.4	-9.4	.4	-9.2	.5	-8.8	.6	-8.4	3.8	509.0(3342)	9.0	4.0
520	.4	-8.7	.1	-8.9	.7	-8.6	.9	-8.4	1.0	-8.2	1.1	-8.1	4.1	509.7(3332)	8.9	4.6
525	.7	-8.9	.6	-8.6	.6	-9.2	.5	-9.1	.5	-9.1	.6	-9.2	4.0	510.2(3322)	9.3	4.0
530	.6	-9.2	.5	-9.3	.7	-9.0	.9	-8.6	1.2	-8.4	1.4	-8.2	4.0	510.2(3312)	9.3	4.2
535	2.2	-7.5	2.1	-7.5	2.1	-7.7	1.9	-7.8	1.6	-7.8	1.3	-7.7	4.5	510.1(3302)	9.3	5.0
540	.7	-8.1	1.0	-8.0	.5	-8.3	.2	-8.3	.2	-7.9	.4	-7.5	4.0	509.9(2472)	10.0	3.4
545	.4	-7.3	.1	-7.8	.8	-6.9	1.3	-6.8	1.6	-6.9	1.8	-7.0	3.5	509.6(2462)	9.6	3.4
550	1.7	-6.9	1.7	-7.1	1.7	-6.8	1.6	-6.9	1.4	-7.3	1.1	-7.8	3.0	509.3(2451)	9.0	2.9
555	1.5	-7.5	2.0	-6.9	1.0	-8.2	.4	-8.8	-.2	-9.2	-.7	-9.6	3.6	508.9(2441)	9.0	4.2
600	-.7	-9.6	-.1	-9.0	-1.2	-10.1	-1.6	-10.3	-1.8	-10.1	-1.8	-9.7	3.9	508.6(2431)	9.2	4.0
605	-2.1	-10.0	-2.3	-10.2	-1.9	-9.8	-1.8	-9.7	-1.8	-9.8	-1.9	-10.0	3.1	508.4(2421)	9.3	2.7
610	-2.3	-10.2	-2.1	-10.2	-2.5	-10.1	-2.6	-10.2	-2.7	-10.6	-2.8	-10.8	3.4	508.8(2411)	9.1	3.9
615	-2.1	-10.1	-2.2	-10.2	-2.0	-9.8	-1.7	-9.5	-1.4	-9.1	-.8	-8.3	3.8	508.7(2401)	9.8	3.8
620	.8	-6.7	-.1	-7.6	1.7	-5.9	2.3	-5.2	2.7	-4.9	2.8	-4.9	3.8	507.9(2382)	9.7	3.7
625	3.5	-4.1	3.6	-4.1	3.4	-4.1	3.3	-4.0	3.3	-4.0	3.2	-4.5	3.1	506.5(2372)	9.1	2.9
630	3.7	-4.4	4.1	-3.6	3.3	-5.0	3.0	-5.7	2.7	-6.2	2.5	-6.7	2.9	505.3(2362)	9.3	2.9
635	2.9	-6.7	3.2	-6.0	2.6	-7.1	2.4	-7.4	2.1	-7.7	1.9	-7.7	3.1	504.9(2352)	9.3	3.3
640	2.0	-7.6	2.1	-7.5	1.9	-7.6	2.0	-7.6	2.0	-7.5	2.1	-7.5	2.9	504.5(2341)	9.2	2.8
645	2.1	-7.3	2.1	-7.5	2.1	-7.2	2.1	-7.2	2.1	-7.4	2.1	-7.8	2.8	504.4(2331)	9.0	3.0
MEAN	1.8	-7.7	1.8	-7.7	1.8	-7.7	1.8	-7.7	1.7	-7.8	1.7	-7.8	3.9	508.5	9.4	3.9
DEV	2.0	1.9	2.0	1.8	2.0	1.9	2.1	1.9	2.2	1.9	2.2	1.9	.8		1.1	.9
RMS	2.7	8.0	2.8	8.0	2.7	8.0	2.8	8.0	2.8	8.1	2.9	8.1				
CORR L		.75(SLOPE= .80)											.08	0.00		-.08
CORR A													-.07	0.00		-.29

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	3	1	3	6	8	3	4	5	0	0	0	0	0	0
NUMBER ASKANIA	2	6	4	6	9	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 10 BAFFIN CRUISE, OCT 1963

TRACK-100 KNOTS 184 DEGS WIND- 17 KNOTS 001 DEGS ACC- VERTICAL= 24 KMGL SURGE= 04 KMGL SWAY= 07 KMGL
LACOSTE RECORD NORMAL. OCT 9
ASKANIA RECORD DISTURBED DUE FREQUENT LARGE COURSE CHANGES BUT READABLE. SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.5SECS,WIDTH=.02CPS.SURGE= 6.2SECS,.03CPS.SWAY= 5.5SECS,.08CPS.CROSS COUP=+ 1.9 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
755	-2.2	-6.2	-1.6	-6.5	-2.7	-5.8	-3.1	-5.3	-3.6	-5.0	-4.1	-4.7	-2.6	504.4(2332)	10.5	183.2
800	-4.5	-4.6	-4.1	-4.7	-4.8	-4.7	-4.4	-4.5	-3.1	-4.2	-1.5	-3.9	-2.4	504.6(2342)	10.1	182.7
805	-.3	-3.7	-1.6	-4.0	.7	-3.6	1.2	-3.5	1.7	-3.5	2.1	-3.2	-2.1	505.0(2361)	10.0	182.5
810	1.5	-3.9	1.0	-4.3	1.8	-3.5	2.1	-3.2	2.0	-3.1	1.8	-3.1	-2.3	505.8(2371)	10.3	183.0
815	-1.3	-5.6	-.7	-5.6	-2.7	-5.5	-4.7	-5.3	-6.7	-5.1	-8.3	-4.9	-2.7	507.9(2382)	10.5	183.3
820	-9.8	-5.6	-9.0	-5.6	-10.2	-5.6	-10.5	-5.7	-10.9	-5.6	-11.4	-5.5	-2.9	508.5(2392)	10.3	183.4
825	-11.7	-5.6	-11.6	-5.7	-10.9	-5.5	-9.0	-5.4	-7.1	-5.4	-6.0	-5.4	-2.8	508.8(2411)	10.2	183.3
830	-5.4	-5.2	-5.7	-5.1	-5.4	-5.2	-5.2	-5.2	-4.5	-5.1	-3.4	-5.1	-2.9	508.4(2421)	10.1	183.5
835	-2.8	-5.3	-3.7	-5.4	-2.1	-5.1	-1.5	-4.9	-.7	-4.8	.2	-4.6	-2.9	508.6(2431)	10.1	183.5
840	.6	-4.9	-.2	-5.0	1.2	-4.9	1.5	-4.8	1.5	-4.7	1.2	-4.5	-2.8	509.1(2442)	10.1	183.3
845	.5	-4.8	.7	-5.0	.3	-4.7	.4	-4.6	.7	-4.4	1.0	-4.1	-3.0	509.4(2452)	10.2	183.7
850	1.1	-4.3	.6	-4.5	1.4	-4.2	1.7	-4.3	1.9	-4.4	2.2	-4.4	-3.3	509.6(2462)	10.3	183.9
855	2.5	-4.7	1.9	-4.7	3.0	-4.6	3.1	-4.6	3.0	-4.5	2.8	-4.5	-3.2	510.0(2481)	10.2	183.6
900	2.2	-4.8	2.4	-4.9	2.2	-4.8	2.4	-4.8	2.5	-4.9	2.6	-4.9	-3.4	510.2(3311)	10.1	184.1
905	2.0	-5.4	2.2	-5.3	1.8	-5.6	1.7	-5.9	1.6	-6.3	1.5	-6.6	-3.6	510.3(3321)	9.9	184.3
910	1.8	-6.6	1.9	-6.2	1.6	-6.8	1.1	-6.8	.1	-6.7	-1.4	-6.8	-3.5	510.1(3331)	9.9	184.0
915	-1.8	-5.7	-.3	-5.7	-3.0	-5.6	-3.7	-5.5	-4.0	-5.3	-4.1	-5.1	-3.4	509.0(3342)	9.9	184.1
920	-4.4	-5.1	-4.3	-5.3	-4.3	-4.8	-4.1	-4.6	-3.2	-4.6	-2.0	-4.5	-3.5	509.2(3352)	9.8	184.2
925	-.9	-4.7	-2.1	-4.6	0.0	-4.8	.6	-4.8	.7	-4.6	0.0	-4.3	-3.6	509.2(3362)	9.9	184.2
930	-1.2	-4.4	-.2	-4.5	-2.1	-4.4	-3.0	-4.5	-3.8	-4.5	-4.2	-4.5	-3.7	509.3(3372)	9.9	184.4
935	-4.4	-4.5	-4.2	-4.5	-4.5	-4.5	-4.6	-4.8	-4.4	-5.0	-3.7	-5.2	-3.6	509.4(3382)	9.7	184.2
940	-2.6	-5.2	-3.6	-5.1	-1.7	-5.3	-1.1	-5.4	-.4	-5.5	.1	-5.5	-3.5	509.3(3392)	9.7	184.3
945	.4	-5.5	0.0	-5.6	.9	-5.2	1.3	-4.8	1.7	-4.6	2.2	-4.5	-3.7	509.2(3402)	9.8	184.5
950	1.9	-5.2	1.4	-5.3	2.3	-5.1	2.5	-4.9	2.8	-4.5	3.0	-4.2	-3.7	510.1(3412)	9.9	184.3
955	2.6	-4.6	2.3	-4.9	2.8	-4.5	2.8	-4.8	2.6	-5.2	2.0	-5.6	-4.0	510.4(3422)	9.9	184.9
1000	1.8	-5.7	2.2	-5.4	1.5	-5.9	1.3	-6.0	1.1	-6.2	.8	-6.6	-4.1	510.1(3432)	9.7	184.8
1005	1.1	-6.3	1.6	-5.8	.7	-6.7	.4	-6.8	.2	-6.9	.2	-6.8	-3.9	509.6(3442)	9.6	184.6
1010	.9	-6.0	1.0	-6.0	.8	-6.1	.6	-6.3	.4	-6.5	.2	-6.6	-3.9	508.7(3452)	9.7	184.8
1015	1.0	-5.7	1.1	-5.7	.9	-5.6	.9	-5.5	1.0	-5.6	1.2	-5.7	-3.9	507.8(3462)	9.8	184.6
1020	1.5	-5.8	1.4	-5.5	1.5	-5.9	1.5	-5.9	1.6	-5.8	1.7	-5.6	-3.9	507.6(3472)	9.9	184.6
1025	1.6	-5.8	1.5	-5.8	1.6	-5.8	1.5	-5.9	1.4	-5.8	1.4	-5.6	-4.0	507.7(4302)	10.0	184.7
1030	1.3	-5.5	1.1	-5.9	1.6	-5.2	2.0	-4.9	2.4	-4.6	2.6	-4.5	-4.2	507.8(4311)	9.9	185.0
1035	1.9	0.0	1.7	0.0	2.3	0.0	2.6	0.0	2.9	0.0	3.0	0.0	-4.4	508.5(4321)	9.8	185.2
MEAN	-.7	-5.2	-.8	-5.2	-.7	-5.1	-.6	-5.1	-.5	-5.0	-.4	-5.0	-3.3	508.5	9.9	183.9
DEV	3.3	.6	3.3	.5	3.4	.7	3.4	.7	3.3	.8	3.4	.9	.5		.2	.6
RMS	3.5	5.3	3.4	5.3	3.5	5.2	3.5	5.2	3.4	5.2	3.4	5.1				
CORR L		.03(SLOPE= .16)											-.43	0.00		.45
CORR A													.40	0.00		-.39

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	1	1	0	0	0	0	1	3	2	2	3	2	7	9	2	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	1	11	15	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 11 BAFFIN CRUISE,OCT 1963

TRACK-103 KNOTS 004 DEGS WIND- 16 KNOTS 014 DEGS ACC- VERTICAL= 13 KMGL SURGE= 05 KMGL SWAY= 06 KMGL
LACOSTE RECORD NORMAL. NEW COURSE KEEPING PROCEDURE BEGINS HERE, FEWER COURSE CHANGES WILL BE MADE.
ASKANIA ENOGRAPH RECORD MISSING, DISREGARD ASKANIA VALUES. SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.9SECS,WIDTH=.05CPS.SURGE=10.0SECS,.03CPS.SWAY=10.0SECS,.10CPS. CROSS. COUP- 1.2 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1235	2.2	0.0	2.2	0.0	2.0	0.0	1.8	0.0	1.5	0.0	1.4	0.0	4.8	508.5(4321)	10.8	4.0
1240	1.8	0.0	2.0	0.0	1.7	0.0	1.5	0.0	1.4	0.0	1.2	0.0	4.7	507.8(4311)	10.5	4.3
1245	1.6	0.0	1.7	0.0	1.5	0.0	1.6	0.0	1.6	0.0	1.6	0.0	5.0	507.6(3481)	10.4	4.7
1250	1.7	0.0	1.5	0.0	1.8	0.0	2.0	0.0	2.1	0.0	2.2	0.0	5.0	507.7(3471)	10.4	4.6
1255	1.9	0.0	1.7	0.0	2.1	0.0	2.3	0.0	2.4	0.0	2.6	0.0	4.9	508.1(3461)	10.4	4.5
1300	1.4	0.0	1.3	0.0	1.4	0.0	1.6	0.0	1.8	0.0	2.1	0.0	4.7	509.2(3451)	10.6	4.1
1305	1.7	0.0	1.5	0.0	1.8	0.0	1.8	0.0	1.8	0.0	1.7	0.0	4.9	510.1(3432)	10.9	4.4
1310	1.9	0.0	2.0	0.0	1.9	0.0	1.8	0.0	1.6	0.0	1.4	0.0	5.5	510.4(3422)	10.7	5.2
1315	1.8	0.0	1.9	0.0	1.6	0.0	1.5	0.0	1.4	0.0	1.3	0.0	5.7	510.1(3412)	10.4	5.3
1320	2.3	0.0	2.4	0.0	2.2	0.0	2.2	0.0	2.2	0.0	2.3	0.0	6.0	509.2(3402)	10.6	5.6
1325	2.2	0.0	2.2	0.0	2.4	0.0	2.6	0.0	2.8	0.0	3.0	0.0	5.9	509.3(3392)	10.5	5.4
1330	2.3	0.0	2.1	0.0	2.4	0.0	2.5	0.0	2.7	0.0	2.9	0.0	5.1	509.4(3382)	10.5	4.3
1335	1.8	0.0	1.6	0.0	2.1	0.0	2.4	0.0	2.6	0.0	2.6	0.0	3.7	509.3(3371)	10.4	2.8
1340	2.3	0.0	2.3	0.0	2.3	0.0	2.2	0.0	2.1	0.0	2.1	0.0	3.3	509.2(3361)	10.4	3.0
1345	2.8	0.0	3.0	0.0	2.5	0.0	2.2	0.0	2.1	0.0	2.0	0.0	4.1	509.1(3351)	10.4	4.2
1350	2.3	0.0	2.4	0.0	2.3	0.0	2.3	0.0	2.3	0.0	2.2	0.0	4.7	509.2(3341)	10.4	4.4
1355	1.6	0.0	1.7	0.0	1.5	0.0	1.5	0.0	1.5	0.0	1.5	0.0	5.2	510.2(3322)	10.2	5.1
1400	1.4	0.0	1.3	0.0	1.6	0.0	1.8	0.0	1.9	0.0	2.0	0.0	5.0	510.2(3312)	10.3	4.5
1405	1.8	0.0	1.6	0.0	1.9	0.0	1.9	0.0	2.0	0.0	2.0	0.0	4.4	510.1(3302)	10.4	3.8
1410	1.7	0.0	1.8	0.0	1.6	0.0	1.6	0.0	1.6	0.0	1.5	0.0	4.1	509.9(2472)	10.3	3.7
1415	1.5	0.0	1.6	0.0	1.4	0.0	1.3	0.0	1.3	0.0	1.3	0.0	3.8	509.5(2461)	10.1	3.4
1420	1.2	0.0	1.1	0.0	1.3	0.0	1.4	0.0	1.4	0.0	1.4	0.0	3.3	509.3(2451)	10.1	2.9
1425	1.7	0.0	1.7	0.0	1.7	0.0	1.6	0.0	1.5	0.0	1.2	0.0	3.2	508.9(2441)	10.2	2.9
1430	2.0	0.0	2.4	0.0	1.6	0.0	1.3	0.0	1.1	0.0	.9	0.0	4.0	508.4(2422)	10.4	3.9
1435	1.2	0.0	1.4	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.1	0.0	4.7	508.7(2412)	10.4	4.6
1440	1.4	0.0	1.2	0.0	1.5	0.0	1.7	0.0	1.9	0.0	2.1	0.0	4.8	508.7(2401)	10.3	4.4
1445	1.7	0.0	1.4	0.0	1.9	0.0	2.1	0.0	2.3	0.0	2.4	0.0	3.7	508.2(2391)	10.2	2.8
1450	3.0	0.0	2.9	0.0	3.1	0.0	3.1	0.0	2.9	0.0	2.7	0.0	2.4	506.5(2372)	10.0	1.8
1455	3.4	0.0	3.6	0.0	3.2	0.0	3.1	0.0	2.8	0.0	2.6	0.0	2.2	505.3(2362)	10.0	1.9
1500	3.1	0.0	3.4	0.0	2.8	0.0	2.6	0.0	2.5	0.0	2.3	0.0	2.5	504.9(2352)	10.0	2.4
1505	3.2	0.0	3.5	0.0	2.9	0.0	2.6	0.0	2.3	0.0	2.0	0.0	3.4	504.5(2341)	10.0	3.5
1510	2.3	0.0	2.6	0.0	2.2	0.0	2.1	0.0	2.1	0.0	2.1	0.0	3.9	504.4(2331)	9.8	3.8
1515	1.9	0.0	1.8	0.0	2.0	0.0	2.2	0.0	2.4	0.0	2.5	0.0	3.2	504.1(2312)	9.7	2.7
MEAN	2.0	0.0	2.0	0.0	1.9	0.0	1.9	0.0	1.9	0.0	1.9	0.0	4.2	508.3	10.3	3.9
DEV	.5	0.0	.6	0.0	.5	0.0	.4	0.0	.5	0.0	.5	0.0	.9		.2	.9
RMS	2.1	0.0	2.1	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0				
CORR L		0.00(SLOPE= 0.00)											-.45	-.01		-.38
CORR A													0.00	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	5	23	5	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 12 BAFFIN CRUISE,OCT 1963

TRACK-108 KNOTS 184 DEGS WIND- 22 KNOTS 024 DEGS ACC- VERTICAL= 18 KMGL SURGE= 03 KMGL SWAY= 04 KMGL
LACOSTE RECORD NORMAL.MINOR SURGE SPECTRA PEAK AT 8.7 SECS. OCT 9
ASKANIA RECORD READABLE BUT MINICOM RECORD IS VERY IRREGULAR. SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.5SECS,WIDTH=.04CPS.SURGE= 5.9SECS,.03CPS.SWAY= 5.5SECS,.12CPS. CROSS COUP.+ 1.0 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1710	2.1	-3.8	1.7	-4.1	2.5	-3.4	2.8	-2.9	3.1	-2.4	3.6	-1.8	-1.6	504.4(2332)	10.7	182.1
1715	3.1	-2.1	2.7	-2.7	3.5	-1.5	3.7	-.9	3.7	-.4	3.7	0.0	-2.3	504.6(2342)	10.7	183.1
1720	2.5	-.8	2.5	-1.2	2.7	-.5	2.9	-.2	3.1	.1	3.2	.4	-3.2	505.0(2361)	10.9	183.8
1725	1.4	-1.3	1.2	-1.6	1.6	-1.0	1.8	-.8	2.1	-.6	2.3	-.7	-3.7	506.5(2372)	11.0	184.1
1730	1.7	-1.6	1.5	-1.5	1.7	-1.8	1.6	-2.0	1.5	-2.3	1.4	-2.6	-3.0	507.9(2382)	10.9	183.0
1735	1.9	-2.5	1.9	-2.1	1.7	-2.9	1.5	-3.3	1.3	-3.5	1.2	-3.6	-1.7	508.7(2401)	10.9	181.7
1740	1.5	-3.3	1.4	-3.4	1.6	-3.1	1.8	-2.8	2.1	-2.3	2.3	-1.7	-1.4	508.8(2411)	11.1	181.9
1745	1.6	-2.1	1.2	-2.8	2.0	-1.3	2.6	-.4	3.3	.3	4.0	1.0	-2.9	508.4(2422)	11.1	183.9
1750	2.0	-.9	1.4	-1.6	2.5	-.4	3.0	0.0	3.4	.1	3.6	-.1	-5.0	508.9(2441)	10.9	186.0
1755	2.9	-1.2	2.8	-.9	2.7	-1.7	2.5	-2.2	2.2	-2.7	1.8	-3.2	-5.4	509.3(2451)	10.9	185.6
1800	2.3	-2.9	2.6	-2.4	2.0	-3.4	1.7	-3.8	1.4	-4.1	1.1	-4.2	-4.3	509.6(2462)	10.9	184.2
1805	2.0	-3.3	2.1	-3.2	1.9	-3.6	1.8	-3.8	1.8	-4.0	1.8	-4.2	-3.1	509.9(2472)	10.8	183.1
1810	2.0	-3.9	2.1	-3.9	2.1	-3.8	2.1	-3.7	2.2	-3.6	2.3	-3.5	-2.5	510.1(3302)	10.7	182.9
1815	1.9	-3.8	1.8	-4.0	2.0	-3.5	2.1	-3.2	2.2	-3.0	2.3	-2.8	-2.9	510.3(3321)	10.7	183.5
1820	2.1	-3.0	2.0	-3.1	2.1	-3.0	2.2	-3.0	2.2	-3.1	2.4	-3.1	-3.3	510.1(3331)	10.8	183.8
1825	3.3	-2.3	3.2	-2.3	3.4	-2.3	3.5	-2.2	3.7	-2.0	3.8	-1.9	-3.7	509.0(3342)	10.7	184.2
1830	3.3	-2.3	3.2	-2.5	3.3	-2.0	3.3	-1.8	3.3	-1.5	3.3	-1.3	-4.1	509.2(3352)	10.7	184.6
1835	3.2	-1.1	3.3	-1.3	3.2	-1.0	3.2	-1.1	3.1	-1.1	3.1	-1.3	-4.0	509.2(3362)	10.8	184.3
1840	3.1	-1.3	3.2	-1.2	3.1	-1.4	3.0	-1.6	3.0	-1.6	3.0	-1.7	-3.8	509.3(3372)	10.7	184.2
1845	3.0	-1.8	2.9	-1.8	3.1	-1.8	3.1	-1.8	3.1	-1.7	3.2	-1.6	-3.9	509.4(3391)	10.9	184.3
1850	3.4	-1.3	3.4	-1.4	3.4	-1.3	3.5	-1.3	3.6	-1.3	3.7	-1.4	-3.8	509.2(3401)	11.0	184.1
1855	3.2	-1.8	3.3	-1.8	3.2	-1.8	3.1	-1.8	3.1	-1.8	3.2	-1.9	-4.1	509.4(3411)	10.8	184.5
1900	1.8	-3.4	1.8	-3.3	1.8	-3.5	1.8	-3.6	1.8	-3.7	1.7	-3.8	-4.3	510.5(3421)	10.9	184.7
1905	2.8	-2.9	2.8	-2.7	2.8	-3.0	2.8	-3.2	2.9	-3.3	2.9	-3.3	-3.6	510.1(3432)	11.1	183.6
1910	3.4	-2.8	3.5	-2.7	3.4	-2.7	3.3	-2.6	3.4	-2.5	3.5	-2.4	-3.5	509.6(3442)	11.1	184.0
1915	2.7	-3.1	2.6	-3.3	2.7	-2.9	2.7	-2.8	2.6	-2.7	2.5	-2.8	-5.3	508.7(3452)	10.8	186.4
1920	3.0	-2.6	3.0	-2.3	2.9	-3.1	2.7	-3.7	2.3	-4.4	1.8	-5.0	-5.8	507.8(3462)	10.6	186.0
1925	3.5	-3.4	4.0	-2.8	3.1	-4.0	2.8	-4.5	2.8	-4.9	2.8	-5.0	-3.8	507.6(3472)	10.3	183.3
1930	0.0	-4.1	0.0	-4.3	0.0	-3.8	0.0	-3.5	0.0	-3.1	0.0	-2.7	-2.9	507.7(4302)	10.8	183.3
1935	0.0	-3.1	0.0	-3.6	0.0	-2.6	0.0	-1.9	0.0	-1.1	0.0	-.3	-3.4	508.1(4312)	11.6	183.8
MEAN	2.5	-2.4	2.4	-2.5	2.5	-2.4	2.6	-2.3	2.6	-2.2	2.6	-2.2	-3.5	508.5	10.8	183.9
DEV	.6	.9	.7	.9	.6	1.0	.6	1.1	.7	1.3	.8	1.5	1.0		.2	1.1
RMS	2.6	2.6	2.6	2.7	2.6	2.6	2.7	2.6	2.7	2.7	2.8	2.7				
CORR L		.23(SLOPE= .16)											-.41	0.00		.34
CORR A													-.35	0.00		.38

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	1	12	14	1	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	4	11	8	7	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 13 BAFFIN CRUISE,OCT 1963

TRACK-098 KNOTS 004 DEGS WIND- 26 KNOTS 034 DEGS ACC- VERTICAL= 24 KMGL SURGE= 04 KMGL SWAY= 08 KMGL
LACOSTE RECORD NORMAL. MINOR SURGE SPECTRA PEAK AT 11.1 SECS. OCT 10
ASKANIA RECORD READABLE BUT MINICOM RECORD IS VERY IRREGULAR. SERVO ON
SPECTRA-VERTICAL ACCELERATION NOT ANALYSED SURGE= 3.8SECS,.04CPS.SWAY= 4.5SECS,.06CPS CROSS. COUP- 0.7 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2215	0.0	-2.8	0.0	-3.1	0.0	-2.7	0.0	-2.7	0.0	-2.8	0.0	-3.1	3.9	508.1(4312)	9.3	4.2
2220	0.0	-1.3	0.0	-1.1	0.0	-1.6	0.0	-1.8	0.0	-1.9	0.0	-1.9	5.6	507.7(4302)	10.5	5.9
2225	0.0	-1.9	0.0	-2.1	0.0	-1.6	0.0	-1.1	0.0	-.6	0.0	0.0	5.3	507.6(3472)	9.2	5.2
2230	0.0	-1.8	0.0	-2.3	0.0	-1.4	0.0	-1.0	0.0	-.7	0.0	-.6	3.1	507.8(3462)	8.2	2.6
2235	0.0	-.2	0.0	-.1	0.0	-.3	0.0	-.6	0.0	-1.0	0.0	-1.3	3.9	508.1(3461)	9.0	5.2
2240	0.0	-1.0	0.0	-.7	0.0	-1.3	0.0	-1.6	0.0	-1.7	0.0	-1.6	5.7	509.2(3451)	9.6	6.3
2245	0.0	-2.0	0.0	-2.4	0.0	-1.5	0.0	-.9	0.0	-.4	0.0	.1	5.6	509.9(3441)	9.9	5.2
2250	0.0	-.5	0.0	-.9	0.0	-.1	0.0	.1	0.0	.4	0.0	.5	4.9	510.3(3431)	9.8	4.7
2255	-6.2	.8	-4.7	.9	-8.1	.6	-9.4	.4	-9.9	.1	-9.7	-.1	5.6	510.5(3421)	9.6	6.2
2300	-7.9	.9	-8.5	1.1	-7.1	.9	-6.3	.9	-5.7	.9	-4.5	.8	5.7	509.4(3411)	9.1	5.9
2305	-3.2	-.1	-5.4	-.1	-.8	-.1	1.2	0.0	2.3	0.0	3.1	0.0	4.6	509.2(3401)	9.4	4.2
2310	3.0	-.4	2.8	-.3	2.5	-.5	1.6	-.8	.6	-1.0	-.3	-1.1	4.5	509.4(3391)	9.9	4.5
2315	-.7	-1.0	0.0	-.8	-1.3	-1.2	-2.0	-1.5	-2.9	-1.7	-4.0	-1.8	4.8	509.4(3381)	9.7	4.9
2320	-4.4	-1.2	-3.3	-1.1	-5.3	-1.1	-5.9	-.9	-6.5	-.7	-6.8	-.4	5.4	509.3(3371)	10.0	5.5
2325	-7.1	-.3	-7.0	-.6	-7.3	0.0	-7.2	.4	-6.7	.8	-6.6	1.3	5.0	509.2(3361)	10.2	4.4
2330	-8.8	0.0	-8.4	-.5	-8.9	.4	-8.1	.8	-7.1	1.1	-6.2	1.2	3.1	509.1(3351)	9.8	2.1
2335	-7.8	-.8	-8.3	-.9	-7.2	-.7	-6.7	-.9	-6.5	-1.2	-5.8	-1.7	1.2	509.2(3341)	9.7	.3
2340	-3.6	-1.7	-5.2	-1.1	-2.0	-2.4	-1.2	-3.0	-.8	-3.6	-.7	-4.1	2.7	510.1(3331)	9.6	3.6
2345	1.8	-2.2	1.6	-1.8	1.9	-2.5	1.9	-2.6	1.7	-2.5	.9	-2.3	5.0	510.2(3312)	9.4	6.0
2350	-.8	-2.6	.4	-2.8	-1.5	-2.3	-1.7	-1.9	-2.1	-1.6	-2.3	-1.3	4.5	510.1(3302)	9.4	3.9
2355	-2.8	-1.2	-2.4	-1.4	-3.3	-1.1	-3.7	-1.1	-3.7	-1.1	-3.0	-1.3	4.1	509.9(2472)	9.6	4.3
0	-.4	.1	-1.5	.2	.2	-.2	.7	-.6	1.4	-.9	1.9	-1.2	5.4	509.6(2462)	9.6	6.1
5	2.0	-1.6	1.7	-1.4	2.2	-1.7	2.3	-1.7	2.5	-1.5	2.7	-1.3	4.9	509.4(2452)	10.2	4.1
10	1.8	-2.1	1.6	-2.4	1.9	-1.8	2.0	-1.4	2.1	-1.2	2.1	-1.0	3.3	508.9(2441)	10.0	2.6
15	3.0	0.0	3.1	0.0	3.0	0.0	3.0	0.0	3.0	0.0	2.9	.1	4.1	508.6(2431)	9.7	4.7
20	2.5	-.1	2.6	-.2	2.5	0.0	2.6	.1	2.7	.3	2.9	.5	3.6	508.4(2421)	9.8	2.9
25	1.4	-1.0	1.2	-1.2	1.5	-.9	1.5	-1.1	1.3	-1.4	1.2	-1.9	2.2	508.8(2411)	9.9	1.5
30	2.5	-.9	2.7	-.4	2.2	-1.4	1.9	-1.9	1.5	-2.4	1.3	-2.9	3.5	508.5(2392)	10.6	3.8
35	2.5	-2.1	2.6	-1.6	2.4	-2.4	2.4	-2.6	2.3	-2.7	2.2	-2.8	4.2	507.9(2382)	10.2	3.8
40	2.8	-2.2	2.9	-2.1	2.7	-2.3	2.7	-2.4	2.6	-2.6	2.4	-2.7	2.7	505.8(2371)	9.9	1.8
45	2.2	-2.7	2.5	-2.6	2.0	-2.9	1.9	-3.1	1.7	-3.4	1.5	-3.8	2.0	505.0(2361)	10.5	1.5
50	3.1	-2.2	3.4	-1.9	2.8	-2.6	2.4	-3.0	2.1	-3.3	1.8	-3.6	3.6	504.6(2342)	10.5	3.9
55	2.8	-2.7	3.0	-2.4	2.6	-3.0	2.4	-3.1	2.2	-3.1	2.2	-3.0	4.5	504.4(2332)	10.0	4.5
100	1.3	-3.7	1.2	-4.0	1.4	-3.3	1.6	-2.8	1.7	-2.4	1.6	-1.9	3.3	504.2(2321)	10.3	2.3
MEAN	-.8	-1.2	-.8	-1.2	-.8	-1.2	-.7	-1.2	-.7	-1.2	-.7	-1.3	4.1	508.4	9.7	4.0
DEV	3.9	1.0	4.0	1.1	3.9	1.1	3.9	1.1	3.8	1.2	3.7	1.4	1.1		.4	1.5
RMS	4.0	1.7	4.1	1.7	4.0	1.7	4.0	1.7	4.0	1.8	3.8	1.9				
CORR L		-.53(SLOPE=-1.81)											-.12	0.00		-.08
CORR A													.27	.01		.31

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	1	2	1	1	0	2	2	0	2	1	2	4	8	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	1	4	10	8	9	2	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 14 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 184 DEGS WIND- 13 KNOTS 027 DEGS ACC- VERTICAL= 10 KMGL SURGE= 04 KMGL SWAY= 05 KMGL
LACOSTE RECORD NORMAL OCT 10
ASKANIA RECORD NORMAL SERVO ON
SPECTRA-VERTICAL ACCELERATION NOT ANALYSED SURGE= 7.7SECS,.04CPS.SWAY ACC NOT RECORDED.CROSS COUP=ZERO

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
205	0.0	-3.7	0.0	-3.7	0.0	-3.5	0.0	-3.2	0.0	-2.8	0.0	-2.2	-.1	504.5(2341)	9.9	181.0
210	0.0	-4.4	0.0	-5.2	0.0	-3.5	0.0	-2.4	0.0	-1.2	0.0	.1	-2.9	504.7(2351)	8.8	185.2
215	0.0	-1.6	0.0	-2.8	0.0	-.4	0.0	.5	0.0	1.3	0.0	1.8	-5.5	505.0(2361)	10.7	186.7
220	1.2	.4	.6	0.0	1.7	.6	2.0	.6	2.2	.6	2.2	.4	-5.9	506.5(2372)	10.9	185.9
225	2.8	.7	2.9	1.1	2.6	.4	2.3	0.0	2.1	-.5	1.9	-1.0	-3.5	508.2(2391)	9.6	183.0
230	2.7	-.8	2.8	-.1	2.5	-1.4	2.3	-1.9	2.2	-2.2	2.1	-2.2	-2.0	508.7(2401)	10.5	182.4
235	1.2	-3.1	1.1	-3.2	1.3	-2.9	1.4	-2.7	1.6	-2.4	1.7	-1.9	-3.1	508.7(2412)	11.6	183.8
240	1.7	-1.5	1.6	-2.0	1.8	-1.1	1.8	-.8	1.8	-.6	1.8	-.4	-3.5	508.4(2422)	10.2	183.8
245	.8	-1.4	.8	-1.4	.7	-1.4	.7	-1.4	.7	-1.5	.7	-1.7	-4.0	508.9(2441)	9.9	185.0
250	-.2	-2.7	-.2	-2.6	-.1	-2.8	0.0	-2.8	.2	-2.9	.3	-3.0	-4.4	509.3(2451)	9.9	185.2
255	1.1	-2.4	1.0	-2.3	1.2	-2.5	1.2	-2.6	1.3	-2.7	1.3	-2.8	-3.6	509.5(2461)	9.9	183.8
300	2.6	-1.7	2.6	-1.5	2.5	-1.8	2.4	-2.0	2.3	-2.2	2.3	-2.4	-1.9	509.8(2471)	10.6	181.8
305	2.0	-2.9	2.0	-2.7	1.9	-3.1	1.8	-3.3	1.8	-3.4	1.8	-3.4	-1.9	510.1(3302)	10.2	182.7
310	1.5	-3.6	1.5	-3.7	1.5	-3.5	1.5	-3.4	1.4	-3.3	1.3	-3.2	-2.1	510.2(3312)	9.3	182.7
315	2.0	-2.3	2.0	-2.5	1.9	-2.2	1.9	-2.0	1.9	-1.8	1.8	-1.6	-1.5	510.2(3322)	10.2	181.7
320	2.0	-1.2	2.0	-1.4	2.1	-.9	2.1	-.7	2.2	-.5	2.3	-.1	-1.8	509.7(3332)	11.0	182.5
325	-6.3	-8.4	-6.3	-8.7	-6.1	-7.9	-5.9	-7.5	-5.7	-7.0	-5.3	-6.5	-10.9	509.1(3351)	9.4	197.7
330	-3.8	-4.9	-4.2	-5.4	-3.4	-4.4	-3.0	-4.1	-2.6	-3.8	-2.3	-3.6	-9.7	509.2(3361)	9.9	187.8
335	8.7	7.4	8.6	7.3	8.8	7.4	9.0	7.4	9.1	7.2	9.1	6.8	1.2	509.3(3371)	12.1	175.9
340	5.8	3.1	5.9	3.6	5.7	2.6	5.4	2.0	4.9	1.5	4.3	.9	-1.9	509.4(3381)	10.3	186.0
345	1.5	-2.0	1.8	-1.6	1.1	-2.4	.8	-2.9	.5	-3.4	.2	-3.8	-4.4	509.4(3391)	9.8	184.6
350	1.5	-2.5	1.9	-2.1	1.1	-2.9	.8	-3.2	.6	-3.4	.6	-3.6	-2.8	509.2(3402)	9.5	183.0
355	2.5	-1.8	2.6	-1.6	2.3	-2.0	2.1	-2.2	1.8	-2.4	1.6	-2.5	-.6	509.4(3411)	9.7	180.2
400	1.2	-2.8	1.4	-2.7	1.2	-2.9	1.3	-2.9	1.5	-2.7	1.8	-2.3	.1	510.5(3421)	10.8	180.3
405	.4	-3.4	.1	-4.0	.7	-2.9	1.1	-2.3	1.5	-1.6	1.9	-1.0	-1.7	510.3(3431)	10.1	183.1
410	-.6	-3.2	-.9	-3.8	-.3	-2.6	-.1	-2.2	.1	-1.9	.2	-1.7	-4.8	509.9(3441)	9.6	186.9
415	-.4	-2.3	-.5	-2.4	-.4	-2.2	-.4	-2.1	-.5	-2.0	-.6	-2.1	-6.2	509.2(3451)	10.5	186.9
420	1.7	0.0	1.8	.3	1.5	-.3	1.3	-.6	1.2	-.8	1.2	-1.0	-4.9	508.1(3461)	11.0	184.4
425	1.0	-1.6	.9	-1.3	1.0	-2.0	1.0	-2.5	1.0	-2.9	1.1	-3.1	-5.7	507.6(3472)	10.6	186.9
430	1.4	-3.0	1.2	-3.0	1.5	-2.9	1.5	-2.8	1.4	-3.0	1.2	-3.3	-5.5	507.7(4302)	9.8	185.8
435	.1	-4.4	.4	-4.1	-.2	-4.6	-.5	-4.8	-.8	-5.0	-1.0	-5.1	-6.3	507.8(4311)	9.7	187.9
440	-1.3	-5.4	-1.1	-5.2	-1.6	-5.6	-1.7	-5.7	-2.0	-5.8	-2.3	-5.9	-5.6	508.5(4321)	10.1	185.6
445	1.4	-2.1	1.6	-2.0	1.1	-2.3	.9	-2.4	.8	-2.4	.7	-2.5	-.5	509.8(4331)	11.0	178.8
MEAN	1.2	-2.1	1.1	-2.1	1.1	-2.0	1.1	-2.0	1.1	-1.9	1.1	-1.9	-3.5	508.6	10.2	184.2
DEV	2.4	2.5	2.5	2.7	2.4	2.4	2.3	2.4	2.3	2.3	2.2	2.3	2.6		.6	3.5
RMS	2.8	3.3	2.8	3.4	2.7	3.2	2.7	3.2	2.6	3.1	2.6	3.0				
CORR L		.90(SLOPE=	.84)										.79	0.00		-.77
CORR A													.50	0.00		-.57

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	1	0	1	0	0	2	4	8	8	4	0	0	1	0	0	1	0	0
NUMBER ASKANIA	0	0	0	1	0	0	2	4	7	10	4	2	1	0	1	0	0	0	1	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 15 BAFFIN CRUISE,OCT 1963

TRACK-103 KNOTS 004 DEGS WIND- 20 KNOTS 061 DEGS ACC- VERTICAL= 16 KMGL SURGE= 03 KMGL SWAY= 07 KMGL
LACOSTE RECORD NORMAL. MINOR SURGE SPECTRA PEAKS AT 11.1 SECS AND 5.6 SECS. OCT 10
ASKANIA RECORD NORMAL
SPECTRA-VERTICAL ACCELERATION NOT ANALYSED SURGE= 4.0SECS,.07CPS.SWAY= 4.3SECS,.14CPS.CROSS COUP=ZERO

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
545	2.6	-3.3	2.8	-3.3	2.3	-3.0	2.2	-2.7	2.2	-2.4	2.3	-2.1	9.4	508.5(4321)	9.8	10.8
550	3.0	-1.2	2.7	-1.7	3.4	-.6	3.8	.1	4.2	.9	4.6	1.8	9.1	507.8(4311)	9.9	8.7
555	2.5	.4	2.3	-.5	2.6	1.2	2.5	1.8	2.6	2.1	2.8	2.4	6.7	507.6(3481)	10.2	5.5
600	-.2	-.6	-.3	-.7	-.1	-.4	0.0	-.3	.1	-.4	.2	-.7	3.6	507.7(3471)	10.7	2.0
605	-1.1	-2.4	-1.1	-2.0	-.9	-2.8	-.5	-3.2	-.2	-3.3	0.0	-3.3	2.7	508.1(3461)	11.0	2.2
610	.8	-2.6	.6	-2.7	1.1	-2.4	1.3	-2.2	1.6	-1.9	1.9	-1.5	4.5	509.2(3451)	10.8	4.7
615	.7	-2.4	.5	-2.9	1.0	-2.0	1.3	-1.6	1.5	-1.4	1.7	-1.4	4.0	510.1(3432)	10.4	2.9
620	1.6	-1.6	1.6	-1.5	1.4	-1.9	1.1	-2.3	.8	-2.7	.5	-3.1	4.0	510.3(3431)	9.7	4.4
625	1.0	-2.8	1.1	-2.5	.9	-3.0	.8	-3.1	.7	-3.3	.6	-3.4	4.8	510.5(3421)	9.8	5.0
630	1.4	-2.6	1.4	-2.6	1.3	-2.6	1.4	-2.4	1.4	-2.2	1.4	-2.1	4.6	509.4(3411)	10.2	4.0
635	1.2	-2.3	1.3	-2.2	1.2	-2.4	1.2	-2.5	1.2	-2.6	1.1	-2.9	4.3	509.3(3392)	10.4	4.0
640	1.6	-2.6	1.7	-2.3	1.5	-3.1	1.4	-3.5	1.2	-3.9	1.0	-4.3	5.0	509.4(3382)	10.3	5.0
645	2.2	-3.3	2.3	-3.0	2.0	-3.7	1.6	-4.0	1.2	-4.3	1.0	-4.4	6.3	509.3(3372)	10.6	6.2
650	1.3	-4.0	1.3	-4.1	1.3	-3.8	1.4	-3.6	1.5	-3.2	1.5	-2.8	6.4	509.2(3362)	10.9	5.6
655	.7	-3.2	.7	-3.6	.9	-2.8	1.1	-2.4	1.3	-2.1	1.3	-1.8	5.5	509.1(3351)	10.7	4.6
700	1.0	-1.7	1.1	-2.0	.8	-1.6	.7	-1.5	.6	-1.5	.5	-1.5	5.4	509.2(3341)	10.5	5.1
705	-.4	-2.5	-.4	-2.4	-.4	-2.9	-.3	-3.1	0.0	-3.2	.4	-3.2	5.4	510.1(3331)	10.4	5.0
710	-.4	-4.3	-.9	-4.5	.1	-4.0	.7	-3.6	1.4	-3.4	1.9	-3.2	4.3	510.2(3312)	10.4	3.3
715	1.7	-3.4	1.4	-3.7	1.8	-2.9	1.7	-2.4	1.6	-2.1	1.4	-1.9	3.6	510.1(3302)	10.7	3.1
720	1.3	-1.7	1.5	-1.8	1.2	-1.6	1.0	-1.6	.8	-1.5	.6	-1.4	3.6	509.9(2472)	10.5	3.1
725	.1	-1.5	.3	-1.7	0.0	-1.4	-.1	-1.3	-.3	-1.4	-.4	-1.6	2.9	509.5(2461)	10.2	2.2
730	-.4	-1.8	-.3	-1.5	-.6	-2.2	-.8	-2.7	-.8	-3.2	-.8	-3.6	2.7	509.3(2451)	10.5	2.3
735	.5	-2.9	.4	-2.4	.5	-3.4	.3	-3.9	-.1	-4.3	-.5	-4.6	3.6	508.9(2441)	10.4	3.6
740	.4	-3.5	.8	-3.3	.1	-3.6	-.2	-3.7	-.6	-3.8	-1.0	-4.0	4.4	508.4(2422)	10.3	4.3
745	-1.0	-3.9	-.8	-3.8	-1.1	-4.0	-1.0	-4.1	-.7	-4.2	-.3	-4.2	4.8	508.7(2412)	10.2	4.6
750	0.0	-4.4	-.4	-4.3	.4	-4.3	.7	-4.3	.9	-4.2	1.0	-4.1	4.7	508.7(2401)	10.1	4.4
755	1.1	-4.0	1.1	-4.0	1.1	-3.9	1.1	-3.9	1.0	-3.8	1.0	-3.8	4.3	508.2(2391)	10.1	3.9
800	1.3	-3.4	1.3	-3.5	1.2	-3.5	1.2	-3.5	1.2	-3.6	1.2	-3.8	3.8	507.3(2381)	10.1	3.3
805	2.9	-2.3	2.8	-2.2	3.1	-2.4	3.1	-2.5	3.1	-2.6	2.9	-2.7	3.4	505.3(2362)	10.2	2.9
810	3.0	-2.6	3.1	-2.5	2.8	-2.6	2.7	-2.6	2.6	-2.5	2.5	-2.4	3.1	504.9(2352)	10.3	2.7
815	2.5	-2.2	2.5	-2.4	2.2	-2.0	1.8	-1.9	1.5	-1.8	1.4	-1.7	2.8	504.5(2341)	10.3	2.2
820	1.0	-2.1	1.0	-2.1	1.0	-2.0	1.0	-1.9	1.0	-1.8	.9	-1.8	2.2	504.4(2331)	10.2	1.7
825	.7	-1.7	.9	-1.8	.8	-1.8	1.1	-1.8	1.3	-1.9	1.5	-1.9	2.0	504.1(2312)	10.1	1.6
MEAN	1.0	-2.5	1.0	-2.5	1.0	-2.5	1.0	-2.4	1.0	-2.4	1.0	-2.4	4.4	508.4	10.3	4.0
DEV	1.1	1.0	1.1	.9	1.0	1.1	1.0	1.2	1.0	1.4	1.1	1.5	1.6		.3	1.8
RMS	1.5	2.8	1.5	2.8	1.5	2.8	1.5	2.8	1.5	2.8	1.6	2.9				
CORR L		.21(SLOPE= .22)											.37	0.00		.38
CORR A													-.06	0.00		-.13

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	2	7	14	4	6	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	5	12	12	3	1	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 16 BAFFIN CRUISE,OCT 1963

TRACK-106 KNOTS 184 DEGS WIND- 12 KNOTS 035 DEGS ACC- VERTICAL= 10 KMGL SURGE= 04 KMGL SWAY= 06 KMGL
LACOSTE RECORD NORMAL. ASKANIA RESULTS FOR RUNS 16 TO 29 INC. UNCERTAIN DUE TO MISSING OR INTERRUPTED MINICOM VALUES.
ASKANIA RECORD NORMAL EXCEPT FOR ABOVE NOTE SERVO OFF
SPECTRA-VERTICAL ACCELERATION NOT ANALYSED SURGE= 9.1SECS,.04CPS.SWAY, 7.7SECS,.09CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
945	-.2	-1.7	-.3	-1.8	0.0	-1.6	.2	-1.5	.5	-1.4	.8	-1.3	-2.1	504.4(2331)	10.5	182.6
950	.8	-1.3	.6	-1.5	1.0	-1.2	1.2	-1.2	1.4	-1.1	1.5	-1.0	-2.1	504.5(2341)	10.6	182.5
955	.7	-1.3	1.2	-1.3	-.3	-1.2	-1.0	-1.1	-1.4	-1.0	-1.5	-.8	-2.0	504.9(2352)	10.7	182.4
1000	-2.0	-1.3	-2.1	-1.4	-1.9	-1.1	-1.6	-.9	-1.3	-.7	-.8	-.5	-2.2	505.3(2362)	10.7	182.7
1005	-2.3	-2.6	-3.2	-2.9	-.8	-2.4	.3	-2.1	1.1	-1.8	1.7	-1.5	-2.7	507.3(2381)	10.7	183.2
1010	.3	-2.9	-.1	-3.3	.7	-2.6	1.0	-2.3	1.1	-2.0	1.2	-1.7	-3.3	508.5(2392)	10.8	183.9
1015	.8	-2.0	.7	-2.2	.9	-1.8	1.0	-1.6	1.1	-1.5	1.1	-1.4	-3.5	508.8(2402)	10.8	183.9
1020	1.4	-1.0	1.4	-1.1	1.5	-.9	1.5	-.9	1.6	-.8	1.6	-.8	-3.5	508.4(2421)	10.9	183.9
1025	1.7	-1.0	1.5	-.9	1.7	-1.0	1.8	-1.0	1.9	-1.1	2.0	-1.1	-3.4	508.6(2431)	10.8	183.7
1030	1.7	-1.6	1.6	-1.5	1.8	-1.6	1.8	-1.6	1.9	-1.6	1.9	-1.6	-3.3	509.1(2442)	10.9	183.6
1035	1.5	-2.0	1.4	-2.1	1.5	-1.9	1.6	-1.8	1.7	-1.6	1.9	-1.5	-3.5	509.4(2452)	10.9	184.0
1040	1.2	-2.1	1.1	-2.3	1.4	-2.0	1.4	-1.9	1.4	-1.9	1.3	-1.9	-3.9	509.8(2471)	10.8	184.4
1045	1.2	-1.9	1.2	-2.0	1.3	-2.0	1.3	-2.0	1.3	-2.1	1.3	-2.1	-3.8	510.0(3301)	10.8	184.1
1050	1.6	-1.7	1.8	-1.6	1.6	-1.7	1.6	-1.8	1.7	-1.9	1.8	-2.0	-3.1	510.2(3312)	10.8	183.2
1055	2.3	-1.5	2.4	-1.4	2.3	-1.7	2.2	-1.8	2.2	-1.9	2.3	-1.9	-2.5	510.2(3322)	10.8	182.8
1100	2.8	-1.5	2.8	-1.4	2.8	-1.5	2.8	-1.5	2.8	-1.4	3.0	-1.3	-2.6	509.7(3332)	10.8	183.0
1105	3.0	-1.3	2.8	-1.5	3.2	-1.1	3.5	-.9	3.7	-.8	3.8	-.6	-3.3	509.1(3351)	10.7	184.0
1110	3.2	-1.3	3.0	-1.4	3.3	-1.1	3.5	-1.0	3.6	-.9	3.6	-.8	-4.0	509.2(3361)	10.6	184.7
1115	3.3	-1.1	3.2	-1.2	3.4	-1.0	3.4	-.9	3.5	-.7	3.7	-.6	-4.4	509.3(3371)	10.7	184.8
1120	3.4	-.9	3.3	-1.0	3.5	-.8	3.5	-.8	3.5	-.9	3.4	-1.0	-4.7	509.4(3382)	10.6	185.2
1125	3.7	-.6	3.9	-.5	3.6	-.7	3.4	-.9	3.1	-1.0	2.9	-1.1	-4.3	509.3(3392)	10.4	184.5
1130	3.5	-.6	3.5	-.5	3.5	-.7	3.6	-.7	3.8	-.6	4.0	-.5	-3.7	509.2(3402)	10.5	184.0
1135	3.1	-1.5	2.9	-1.6	3.3	-1.4	3.5	-1.2	3.7	-1.1	3.8	-1.0	-4.0	510.1(3412)	10.4	184.7
1140	3.1	-1.6	3.1	-1.7	2.9	-1.5	2.8	-1.5	2.6	-1.5	2.5	-1.5	-4.4	510.4(3422)	10.4	185.0
1145	2.5	-1.3	2.7	-1.3	2.3	-1.3	2.2	-1.3	2.0	-1.3	1.9	-1.4	-4.4	510.1(3432)	10.4	184.9
1150	2.3	-.9	2.4	-.9	2.2	-1.0	2.1	-1.1	2.0	-1.2	1.9	-1.3	-4.5	509.6(3442)	10.5	185.0
1155	2.4	-.8	2.5	-.7	2.3	-.9	2.2	-1.0	2.1	-1.1	1.9	-1.2	-4.7	508.7(3452)	10.4	185.4
1200	2.2	-.7	2.4	-.7	2.0	-.8	1.7	-.9	1.4	-1.1	.9	-1.2	-5.2	507.8(3462)	10.4	185.8
1205	1.0	-.7	1.6	-.5	.5	-1.0	-.1	-1.2	-.6	-1.5	-1.1	-1.7	-4.7	507.6(3472)	10.5	184.8
1210	-.4	-.9	0.0	-.6	-.8	-1.1	-1.1	-1.3	-1.3	-1.4	-1.4	-1.5	-3.4	507.7(4302)	10.5	183.4
1215	-1.1	-1.3	-1.1	-1.2	-1.0	-1.3	-.9	-1.3	-.6	-1.2	-.2	-1.0	-2.8	508.1(4312)	10.7	183.1
1220	-1.0	-2.0	-1.4	-2.2	-.5	-1.8	0.0	-1.5	.4	-1.2	.9	-.8	-3.1	509.0(4322)	10.8	183.7
MEAN	1.4	-1.4	1.4	-1.4	1.5	-1.3	1.5	-1.3	1.6	-1.2	1.6	-1.2	-3.5	508.5	10.6	183.9
DEV	1.5	.5	1.6	.6	1.4	.4	1.4	.4	1.4	.4	1.4	.4	.8		.1	.8
RMS	2.2	1.5	2.2	1.6	2.1	1.4	2.2	1.4	2.2	1.4	2.2	1.3				
CORR L		.46(SLOPE= 1.35)											-.58	.01		.58
CORR A													-.40	-.04		.33

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	2	2	3	7	8	8	2	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	2	9	21	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 17 BAFFIN CRUISE,OCT 1963

TRACK-096 KNOTS 004 DEGS WIND- 16 KNOTS 056 DEGS ACC- VERTICAL= 15 KMGL SURGE= 03 KMGL SWAY= 07 KMGL
LACOSTE RECORD NORMAL. TEMPERATURE IN GRAVIMETER ROOM 110 DEG. F. OCT 10
ASKANIA RECORD NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28597 SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.0SECS,WIDTH=.05CPS.SURGE=10.0SECS,.04CPS,SWAY= 5.0SECS,.10CPS CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1355	-1.7	-1.2	-1.0	-1.1	-2.5	-1.3	-3.2	-1.4	-3.7	-1.5	-3.9	-1.6	4.3	508.5(4321)	9.3	4.7
1400	-2.5	-.5	-2.6	-.3	-2.5	-.7	-2.6	-.9	-2.7	-1.0	-2.7	-1.2	4.9	507.8(4311)	9.5	5.2
1405	-2.3	-1.0	-2.4	-.9	-2.1	-1.1	-1.9	-1.2	-1.9	-1.3	-1.9	-1.4	4.9	507.6(4301)	9.5	5.0
1410	-2.0	-1.5	-2.0	-1.5	-1.8	-1.5	-1.7	-1.5	-1.6	-1.5	-1.6	-1.5	4.9	507.6(3472)	9.4	5.1
1415	-1.3	-1.2	-1.4	-1.3	-1.2	-1.2	-1.0	-1.2	-.8	-1.2	-.6	-1.2	5.2	507.8(3462)	9.5	5.6
1420	-.9	-1.7	-1.1	-1.7	-.7	-1.6	-.5	-1.6	-.2	-1.5	0.0	-1.4	5.6	508.7(3452)	9.4	6.1
1425	-1.1	-2.5	-1.3	-2.7	-1.1	-2.3	-1.2	-2.1	-1.3	-1.8	-1.3	-1.5	5.2	509.6(3442)	9.5	5.2
1430	-2.6	-2.5	-2.6	-2.8	-2.6	-2.3	-2.6	-2.0	-2.6	-1.8	-2.6	-1.6	4.4	510.1(3432)	9.6	4.1
1435	-3.4	-2.3	-3.5	-2.5	-3.2	-2.1	-2.8	-2.0	-2.5	-2.0	-2.1	-1.9	3.9	510.4(3422)	9.5	3.8
1440	-1.5	-1.6	-1.9	-1.7	-1.1	-1.6	-.7	-1.6	-.3	-1.6	-.1	-1.7	3.7	510.1(3412)	9.4	3.7
1445	1.1	-.7	.9	-.7	1.1	-.8	.9	-.9	.8	-1.0	.6	-1.1	4.1	509.4(3411)	9.5	4.3
1450	1.2	-.5	1.3	-.4	1.0	-.6	.8	-.7	.7	-.7	.9	-.8	4.5	509.2(3401)	9.6	4.7
1455	.9	-1.0	.7	-1.0	1.2	-1.0	1.4	-1.0	1.5	-1.0	1.6	-1.0	4.6	509.4(3391)	9.7	4.5
1500	1.2	-1.3	1.3	-1.3	1.1	-1.3	1.0	-1.3	.9	-1.3	.7	-1.3	4.2	509.3(3372)	9.7	3.9
1505	.8	-.8	1.2	-.8	.5	-.9	.2	-1.1	-.1	-1.2	-.3	-1.4	4.6	509.2(3362)	9.7	4.9
1510	.2	-.8	.4	-.7	-.1	-1.0	-.4	-1.1	-.6	-1.3	-.8	-1.4	5.2	509.2(3352)	9.6	5.5
1515	-1.0	-1.6	-.9	-1.5	-.9	-1.5	-.7	-1.4	-.5	-1.2	-.1	-1.0	5.0	509.0(3342)	9.7	4.8
1520	-1.6	-2.5	-1.9	-2.8	-1.2	-2.2	-.8	-1.9	-.4	-1.6	-.2	-1.3	3.8	509.7(3332)	9.6	3.3
1525	-1.6	-2.7	-1.9	-3.0	-1.5	-2.5	-1.4	-2.4	-1.6	-2.3	-2.0	-2.3	2.6	510.2(3322)	9.6	2.1
1530	-1.8	-1.9	-1.5	-1.8	-2.1	-2.0	-2.4	-2.1	-2.5	-2.3	-2.7	-2.5	3.1	510.2(3312)	9.7	3.4
1535	-1.6	-1.3	-1.4	-1.2	-1.7	-1.5	-1.8	-1.6	-1.7	-1.8	-1.6	-1.9	4.3	510.1(3302)	9.6	4.8
1540	-.8	-1.4	-.9	-1.2	-.9	-1.5	-1.1	-1.7	-1.3	-1.8	-1.5	-2.0	4.8	509.9(2472)	9.7	4.9
1545	-.9	-1.4	-.8	-1.3	-1.0	-1.6	-1.1	-1.7	-1.2	-1.8	-1.4	-1.9	5.1	509.5(2461)	9.7	5.3
1550	-1.7	-2.2	-1.7	-2.2	-1.6	-2.2	-1.4	-2.1	-1.2	-2.0	-1.0	-1.9	4.6	509.3(2451)	9.5	4.4
1555	-1.6	-2.4	-1.6	-2.5	-1.7	-2.3	-1.7	-2.2	-1.6	-2.0	-1.3	-1.9	3.6	508.9(2441)	9.7	3.1
1600	-1.1	-1.9	-1.4	-2.0	-.8	-1.8	-.6	-1.7	-.3	-1.7	0.0	-1.6	3.3	508.6(2431)	9.8	3.1
1605	0.0	-1.9	-.3	-1.9	.4	-1.8	.7	-1.8	.8	-1.9	.7	-1.9	3.1	508.7(2412)	9.8	2.7
1610	.7	-1.8	.9	-1.7	.4	-1.9	.1	-2.1	-.4	-2.2	-.9	-2.4	3.3	508.8(2402)	9.8	3.4
1615	-.4	-1.5	.2	-1.3	-.9	-1.7	-1.3	-1.8	-1.6	-2.0	-1.8	-2.1	4.2	508.5(2392)	9.8	4.4
1620	-.7	-1.0	-.6	-.9	-.8	-1.1	-.8	-1.2	-.7	-1.3	-.5	-1.3	4.2	507.3(2381)	9.8	3.9
1625	.5	-.6	.2	-.6	.7	-.7	.9	-.7	1.0	-.8	1.1	-.9	3.4	505.8(2371)	9.8	2.8
1630	1.5	-.6	1.4	-.6	1.5	-.7	1.4	-.7	1.3	-.8	1.2	-.9	2.8	505.0(2361)	9.8	2.5
1635	1.4	-.7	1.4	-.7	1.3	-.8	1.2	-.8	1.1	-.8	1.0	-.8	2.7	504.6(2342)	9.7	2.5
1640	.7	-1.1	.7	-1.1	.7	-1.1	.7	-1.1	.8	-1.1	.7	-1.2	2.2	504.4(2332)	9.6	1.7
1645	.6	0.0	.6	0.0	.5	0.0	.5	0.0	.5	0.0	.5	0.0	2.0	504.3(2322)	9.9	1.7
MEAN	-.6	-1.4	-.6	-1.4	-.6	-1.4	-.6	-1.4	-.6	-1.5	-.6	-1.5	4.1	508.6	9.6	4.1
DEV	1.3	.6	1.3	.7	1.2	.5	1.2	.4	1.2	.4	1.3	.4	.8		.1	1.0
RMS	1.5	1.6	1.5	1.6	1.4	1.6	1.4	1.6	1.5	1.6	1.5	1.6				
CORR L		.57(SLOPE= 1.15)											-.31	0.00		-.29
CORR A													.10	0.00		.17

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	2	10	9	3	10	1	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	1	13	18	2	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 18 BAFFIN CRUISE,OCT 1963

TRACK-099 KNOTS 184 DEGS WIND- 08 KNOTS 044 DEGS ACC- VERTICAL= 10 KMGL SURGE= 03 KMGL SWAY= 06 KMGL
LACOSTE RECORD NORMAL. OCT 10
ASKANIA RECORD NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28597 SERVO OFF
SPECTRA-VERTICAL ACCELERATION NOT ANALYSED SURGE= 6.7SECS,.04CPS.SWAY= 5.9SECS,.12CPS CROSS COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1800	2.0	-2.2	1.6	-2.4	2.4	-1.8	2.9	-1.5	3.4	-1.1	3.8	-.8	-1.1	504.3(2322)	10.2	182.1
1805	2.9	-1.7	2.6	-2.0	3.2	-1.4	3.2	-1.2	3.1	-1.0	2.8	-1.0	-2.1	504.5(2341)	10.1	182.9
1810	2.5	-.8	2.9	-.9	2.2	-.9	1.8	-1.0	1.4	-1.1	1.2	-1.2	-1.8	504.7(2351)	9.8	182.0
1815	1.9	-.5	2.0	-.4	1.9	-.5	2.0	-.4	2.3	-.3	2.7	-.1	-.8	505.0(2361)	9.9	180.8
1820	1.4	-1.6	1.0	-1.8	1.8	-1.3	2.3	-1.0	2.8	-.6	3.3	-.2	-.9	506.5(2372)	10.0	181.7
1825	1.2	-2.3	.8	-2.7	1.5	-1.9	1.8	-1.6	2.0	-1.3	2.2	-1.1	-2.1	507.9(2382)	9.8	183.2
1830	.7	-2.4	.6	-2.7	.9	-2.1	1.2	-1.8	1.4	-1.6	1.7	-1.3	-2.8	508.7(2401)	9.9	183.6
1835	1.1	-1.9	.9	-2.1	1.3	-1.7	1.5	-1.5	1.8	-1.3	2.0	-1.1	-3.6	508.8(2411)	9.9	184.5
1840	2.0	-1.1	1.9	-1.2	2.1	-1.0	2.1	-1.0	2.1	-.9	2.1	-.9	-4.0	508.4(2421)	9.9	184.8
1845	1.8	-1.1	1.9	-1.1	1.7	-1.2	1.6	-1.2	1.4	-1.3	1.3	-1.3	-3.9	508.7(2432)	9.8	184.5
1850	1.3	-1.2	1.5	-1.1	1.1	-1.2	1.0	-1.3	.9	-1.3	.8	-1.3	-3.3	509.1(2442)	9.8	183.7
1855	.8	-1.4	.7	-1.4	.9	-1.4	1.1	-1.3	1.3	-1.2	1.6	-1.1	-3.2	509.4(2452)	10.0	183.8
1900	1.5	-1.4	1.2	-1.5	1.8	-1.3	2.1	-1.2	2.4	-1.0	2.6	-.9	-3.4	509.6(2462)	10.0	184.0
1905	2.1	-1.4	1.9	-1.6	2.2	-1.2	2.3	-1.1	2.3	-1.0	2.3	-.9	-3.6	510.0(2481)	10.0	184.3
1910	1.8	-1.2	1.9	-1.3	1.6	-1.1	1.5	-1.1	1.4	-1.1	1.3	-1.1	-3.9	510.2(3311)	9.9	184.6
1915	.6	-1.8	.6	-1.8	.7	-1.8	.7	-1.8	.7	-1.9	.6	-2.1	-4.5	510.3(3321)	9.9	185.4
1920	.8	-1.8	1.0	-1.7	.6	-2.0	.3	-2.2	.1	-2.5	-.2	-2.7	-4.2	510.1(3331)	9.9	184.7
1925	2.6	0.0	2.9	.4	2.2	-.3	1.8	-.6	1.5	-.9	1.4	-1.1	-2.3	509.0(3342)	9.7	181.9
1930	2.3	-.3	2.4	-.1	2.3	-.4	2.3	-.5	2.3	-.5	2.5	-.5	-1.1	509.1(3351)	9.6	181.4
1935	2.7	-.5	2.6	-.4	2.9	-.5	3.1	-.4	3.4	-.3	3.7	-.1	-.9	509.2(3362)	9.9	181.4
1940	4.0	-.1	3.5	-.3	4.4	.2	4.9	.5	5.3	.8	5.7	1.2	-1.1	509.3(3372)	10.2	181.7
1945	3.9	-.7	3.4	-1.1	4.2	-.3	4.5	.1	4.7	.4	4.8	.7	-3.3	509.4(3382)	10.4	184.8
1950	3.2	-.8	3.1	-1.0	3.2	-.6	3.2	-.4	3.2	-.2	3.1	-.1	-5.1	509.3(3392)	10.0	186.2
1955	3.9	.8	4.0	.8	3.8	.9	3.7	.9	3.8	1.0	3.8	1.1	-4.3	509.2(3402)	9.8	184.3
2000	2.8	.1	2.8	.1	2.9	.1	2.9	.2	3.1	.2	3.3	.3	-4.4	510.1(3412)	10.3	185.3
2005	2.4	-.7	2.2	-.8	2.6	-.6	2.9	-.6	3.0	-.5	3.1	-.5	-5.1	510.4(3422)	10.1	186.0
2010	1.7	-1.8	1.7	-1.9	1.7	-1.8	1.7	-1.8	1.6	-1.8	1.3	-1.9	-6.8	510.1(3432)	9.7	188.7
2015	.2	-2.8	.6	-2.6	-.3	-2.9	-.9	-3.2	-1.6	-3.6	-2.3	-4.0	-8.0	509.6(3442)	9.6	189.5
2020	1.2	-.4	1.8	.1	.5	-.9	-.1	-1.4	-.6	-1.9	-.9	-2.4	-4.8	508.7(3452)	10.1	183.7
2025	2.5	.8	2.8	1.3	2.4	.4	2.3	0.0	2.2	-.3	2.2	-.6	-2.1	507.8(3462)	10.1	182.0
2030	2.8	-.1	2.9	.1	2.8	-.2	2.9	-.2	3.1	-.2	3.2	-.1	-1.5	507.6(3472)	10.0	182.0
2035	2.2	-1.3	2.0	-1.3	2.4	-1.1	2.6	-.9	2.9	-.7	3.3	-.4	-2.6	507.7(4302)	10.0	183.8
2040	1.5	-2.3	1.1	-2.6	1.8	-2.1	2.0	-1.9	2.1	-1.6	2.2	-1.4	-4.5	508.1(4312)	9.5	186.1
2045	2.4	-1.2	2.2	-1.4	2.7	-.9	2.9	-.7	3.1	-.5	3.4	-.3	-4.1	508.5(4321)	9.9	184.2
MEAN	2.0	-1.0	1.9	-1.1	2.0	-1.0	2.1	-.9	2.1	-.9	2.2	-.8	-3.2	508.5	9.9	183.9
DEV	.9	.8	.9	1.0	1.0	.8	1.1	.8	1.3	.8	1.5	1.0	1.6		.1	1.9
RMS	2.2	1.4	2.2	1.5	2.3	1.3	2.4	1.3	2.6	1.3	2.7	1.3				
CORR L		.70(SLOPE= .76)											.31	0.00		-.30
CORR A													.28	0.00		-.42

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	1	9	13	8	3	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	1	10	13	8	2	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 19 BAFFIN CRUISE, OCT 1963

TRACK-104 KNOTS 004 DEGS WIND- KNOTS DEGS ACC- VERTICAL= 10 KMGL SURGE= 03 KMGL SWAY= 06 KMGL
LACOSTE RECORD NORMAL. SECOND MAJOR SWAY SPECTRA PEAK AT 4.5 SECS OCT 10
ASKANIA RECORD NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28445 SERVO OFF
SPECTRA-VERT CENTER PERIOD= 4.8SECS, WIDTH=.08CPS. SURGE=11.1SECS, .04CPS. SWAY=11.1SECS, .06CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2220	1.7	-1.3	2.2	-1.0	1.4	-1.5	1.0	-1.9	.7	-2.2	.4	-2.6	3.9	508.1(4312)	10.6	3.5
2225	2.4	-.5	2.9	-.1	2.0	-.9	1.6	-1.4	1.2	-1.8	.9	-2.2	5.9	507.7(4302)	10.8	6.3
2230	2.2	-1.1	2.3	-.8	2.0	-1.4	1.9	-1.7	1.8	-2.0	1.8	-2.1	7.2	507.6(3472)	10.7	6.8
2235	.2	-3.9	.2	-3.7	.3	-3.9	.5	-3.9	.8	-3.8	1.0	-3.7	5.8	507.8(3462)	11.4	4.1
2240	-.8	-5.5	-.9	-5.6	-.7	-5.4	-.6	-5.3	-.6	-5.3	-.7	-5.2	4.9	508.7(3452)	10.5	4.4
2245	-.5	-5.0	-.5	-5.0	-.5	-5.0	-.5	-5.0	-.5	-4.9	-.5	-4.9	6.0	509.6(3442)	10.7	6.0
2250	.4	-4.0	.3	-4.1	.5	-4.0	.5	-3.8	.6	-3.7	.9	-3.5	7.5	510.3(3431)	10.6	7.5
2255	1.2	-3.3	.9	-3.5	1.5	-3.1	1.6	-2.9	1.9	-2.7	2.2	-2.6	7.6	510.5(3421)	9.8	7.7
2300	2.0	-2.8	1.8	-3.0	2.2	-2.7	2.5	-2.5	2.8	-2.3	3.2	-2.0	6.1	509.4(3411)	10.1	5.3
2305	1.4	-4.1	.8	-4.4	2.0	-3.8	2.7	-3.4	3.1	-3.1	3.4	-2.8	3.6	509.2(3401)	10.9	2.1
2310	1.7	-4.4	1.6	-4.6	1.8	-4.1	1.8	-4.0	1.7	-3.9	1.5	-3.9	2.0	509.4(3391)	11.0	1.1
2315	2.4	-2.8	2.7	-2.7	2.1	-2.8	1.8	-2.9	1.5	-3.0	1.3	-3.2	3.2	509.4(3381)	10.1	3.7
2320	3.0	-1.4	3.2	-1.3	2.9	-1.5	2.7	-1.6	2.5	-1.7	2.1	-2.0	5.0	509.3(3371)	10.8	4.8
2325	2.0	-2.1	2.2	-1.9	1.8	-2.3	1.6	-2.6	1.5	-2.7	1.7	-2.9	5.0	509.2(3352)	11.0	4.1
2330	1.7	-3.1	1.6	-3.0	1.9	-3.2	2.1	-3.3	2.4	-3.2	2.7	-3.1	4.7	509.0(3342)	10.0	4.5
2335	2.6	-3.4	2.3	-3.5	2.7	-3.3	2.9	-3.2	2.8	-3.1	2.6	-3.0	4.9	509.7(3332)	9.7	5.1
2340	1.3	-4.2	1.3	-4.3	1.4	-4.0	1.7	-3.7	1.9	-3.5	2.2	-3.3	4.2	510.2(3322)	10.0	3.5
2345	.8	-4.7	.6	-4.9	.8	-4.5	.8	-4.3	.8	-4.1	.8	-4.1	2.5	510.2(3311)	11.1	1.3
2350	1.6	-3.0	1.9	-3.0	1.2	-3.2	.5	-3.5	-.3	-3.9	-1.3	-4.4	3.5	510.0(2481)	11.3	3.5
2355	1.0	-1.6	2.0	-1.1	.2	-2.1	-.5	-2.6	-.9	-3.1	-1.1	-3.4	6.3	509.6(2462)	10.7	6.8
0	-.6	-3.1	-.5	-2.8	-.5	-3.2	-.3	-3.3	.1	-3.2	.7	-3.0	6.7	509.4(2452)	10.1	6.3
5	-.7	-4.8	-1.3	-5.0	-.1	-4.6	.5	-4.3	.9	-4.0	1.2	-3.8	4.5	509.1(2442)	10.5	3.0
10	.9	-4.1	.6	-4.4	1.2	-3.9	1.5	-3.7	1.7	-3.5	1.8	-3.3	3.4	508.6(2431)	10.3	3.0
15	1.8	-3.3	1.7	-3.4	1.9	-3.1	2.0	-2.9	2.1	-2.8	2.1	-2.7	3.1	508.4(2421)	10.0	2.7
20	.7	-4.0	.8	-4.0	.7	-3.9	.6	-3.9	.7	-3.9	.8	-3.9	2.2	508.8(2402)	10.1	1.5
25	.9	-3.9	.8	-3.9	1.0	-3.9	.9	-3.9	.9	-3.9	.9	-3.9	1.9	508.5(2392)	10.0	1.6
30	2.3	-2.5	2.3	-2.5	2.4	-2.5	2.3	-2.6	2.0	-2.8	1.5	-2.9	2.7	507.9(2382)	10.3	2.7
35	5.9	1.6	6.2	1.8	5.5	1.3	5.1	.9	4.6	.6	3.9	.2	5.2	505.8(2371)	10.2	6.1
40	3.7	.1	4.3	.6	3.0	-.3	2.4	-.7	2.2	-1.0	2.1	-1.2	4.9	505.0(2361)	10.3	3.8
45	.6	-2.9	.5	-2.8	.7	-2.9	.9	-3.0	1.2	-2.9	1.5	-2.8	2.9	504.6(2342)	10.5	1.8
50	.6	-3.8	.4	-3.9	.9	-3.7	1.1	-3.6	1.2	-3.5	1.2	-3.5	1.5	504.4(2332)	10.4	.8
55	.5	0.0	.6	0.0	.4	0.0	.5	0.0	.6	0.0	.6	0.0	.7	504.2(2321)	10.0	.1
MEAN	1.4	-2.9	1.4	-2.9	1.3	-3.0	1.3	-3.0	1.3	-3.0	1.3	-3.0	4.4	508.5	10.4	4.0
DEV	1.3	1.5	1.4	1.7	1.2	1.4	1.1	1.2	1.1	1.1	1.1	1.0	1.6		.4	1.9
RMS	1.9	3.4	2.1	3.4	1.9	3.3	1.8	3.3	1.8	3.3	1.8	3.3				
CORR L		.81(SLOPE= .70)											.04	-.21		.16
CORR A													.27	0.00		.37

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	3	3	11	11	2	1	0	1	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	4	9	9	3	3	2	0	1	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 20 BAFFIN CRUISE, OCT 1963

TRACK-106 KNOTS 184 DEGS WIND- 08 KNOTS 028 DEGS ACC- VERTICAL= 14 KMGL SURGE= 03 KMGL SWAY= 06 KMGL

LACOSTE RECORD NORMAL. OCT 11

ASKANIA RECORD NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28445 SERVO OFF

SPECTRA-VERT CENTER PERIOD= 5.9SECS, WIDTH=.07CPS. SURGE= 7.7SECS, .05CPS, SWAY= 6.7SECS, .11CPS. CROSS COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
240	1.0	-2.3	1.1	-2.1	1.0	-2.5	1.2	-2.6	1.3	-2.7	1.5	-2.7	-2.4	504.4(2332)	10.4	181.6
245	5.1	-1.6	4.7	-1.6	5.2	-1.5	5.3	-1.3	5.7	-1.0	6.2	-.8	-.1	504.6(2332)	10.5	181.6
250	5.2	-1.9	4.7	-2.3	5.7	-1.6	6.1	-1.2	6.5	-.8	6.9	-.5	-1.2	505.0(2342)	10.6	178.4
255	3.0	-3.0	2.8	-3.4	3.1	-2.8	3.2	-2.6	3.3	-2.3	3.3	-2.2	-3.2	505.8(2361)	10.7	181.5
300	.3	-4.7	.3	-4.9	.2	-4.6	.2	-4.5	.4	-4.4	.6	-4.2	-3.8	507.9(2371)	10.5	185.0
305	1.1	-3.8	.8	-4.0	1.5	-3.7	1.8	-3.5	2.1	-3.3	2.3	-3.2	-2.8	508.7(2382)	10.3	184.6
310	3.7	-2.9	3.6	-3.0	3.8	-2.8	3.8	-2.7	3.6	-2.6	3.5	-2.6	-2.6	508.8(2401)	10.7	183.2
315	2.8	-2.2	3.0	-2.3	2.7	-2.2	2.5	-2.2	2.4	-2.2	2.4	-2.2	-2.7	508.4(2411)	10.9	181.9
320	1.7	-3.1	1.6	-3.1	1.9	-3.0	2.2	-2.9	2.5	-2.9	2.7	-2.8	-3.3	508.7(2432)	10.6	183.6
325	3.8	-1.9	3.5	-2.0	4.1	-1.8	4.4	-1.6	4.7	-1.4	5.0	-1.2	-2.1	509.1(2442)	10.3	181.9
330	5.3	-.9	5.1	-1.1	5.6	-.6	5.8	-.3	6.0	0.0	6.5	.4	-1.6	509.5(2461)	10.8	182.1
335	4.3	-2.0	3.8	-2.3	4.7	-1.7	5.1	-1.4	5.4	-1.2	5.7	-1.0	-4.0	509.8(2471)	11.0	185.4
340	4.5	-2.1	4.4	-2.3	4.5	-2.0	4.5	-2.0	4.5	-1.9	4.4	-1.9	-4.9	510.1(3302)	10.7	185.2
345	5.0	-1.0	5.3	-1.0	4.6	-1.1	4.2	-1.1	3.9	-1.2	3.6	-1.3	-4.0	510.2(3312)	10.8	183.9
350	2.1	-2.5	2.4	-2.5	1.8	-2.6	1.6	-2.7	1.3	-2.8	1.0	-2.9	-5.3	510.1(3331)	10.2	186.7
355	1.2	-2.6	1.5	-2.4	1.1	-2.8	1.0	-3.0	.7	-3.3	.4	-3.6	-5.7	509.2(3341)	10.3	186.0
400	1.4	-2.7	1.6	-2.4	1.1	-3.0	1.0	-3.3	.8	-3.6	.6	-3.9	-4.6	509.1(3351)	11.1	184.4
405	2.3	-2.2	2.5	-2.0	2.1	-2.4	2.0	-2.5	2.2	-2.5	2.5	-2.4	-2.6	509.2(3362)	10.9	182.2
410	2.4	-2.6	2.2	-2.7	2.7	-2.4	3.1	-2.2	3.4	-2.0	3.7	-1.8	-2.8	509.3(3372)	10.1	183.8
415	2.7	-2.9	2.3	-3.2	3.0	-2.7	3.1	-2.5	3.1	-2.3	3.2	-2.1	-4.1	509.4(3382)	10.0	185.1
420	4.7	-.8	4.4	-.9	4.7	-.6	4.7	-.5	4.6	-.3	4.5	-.2	-2.9	509.3(3392)	10.2	182.7
425	5.4	.9	5.5	.8	5.3	1.0	5.4	1.1	5.7	1.3	5.8	1.3	-2.1	509.2(3402)	11.2	182.4
430	3.4	-1.1	3.4	-1.1	3.5	-1.1	3.5	-1.0	3.5	-.9	3.5	-.9	-3.6	510.1(3412)	11.7	184.4
435	3.4	-1.0	3.3	-1.1	3.6	-1.0	3.9	-1.0	4.0	-.8	4.2	-.7	-3.5	510.3(3431)	10.8	183.5
440	4.8	0.0	4.7	-.2	4.9	.1	5.1	.3	5.4	.4	5.6	.5	-3.4	509.9(3441)	10.1	184.2
445	2.9	-2.2	2.8	-2.3	2.9	-2.2	2.8	-2.2	2.7	-2.2	2.5	-2.4	-7.0	509.2(3451)	10.4	189.3
450	2.5	-2.3	2.8	-2.1	2.2	-2.7	1.8	-3.0	1.5	-3.3	1.2	-3.6	-7.8	508.1(3461)	11.1	187.5
455	3.0	-1.9	3.2	-1.6	2.8	-2.2	2.7	-2.4	2.6	-2.6	2.7	-2.8	-6.1	507.7(3471)	10.8	185.8
500	4.8	-.9	4.7	-.8	5.0	-.9	5.1	-1.0	5.2	-1.0	5.3	-1.0	-4.3	507.6(4301)	10.9	184.0
505	7.2	.9	7.1	.8	7.3	.9	7.5	.9	7.7	1.0	7.8	1.0	-2.3	507.8(4311)	12.2	181.9
510	5.3	-1.4	5.3	-1.5	5.4	-1.4	5.5	-1.3	5.6	-1.2	5.7	-1.1	-3.6	509.0(4322)	11.5	184.6
515	4.1	-2.9	3.8	-3.0	4.1	-2.8	4.1	-2.7	4.1	-2.6	4.1	-2.4	-4.6	509.8(4331)	10.9	185.0
MEAN	3.4	-1.9	3.3	-1.9	3.5	-1.8	3.5	-1.8	3.6	-1.7	3.7	-1.7	-3.5	508.6	10.7	183.9
DEV	1.5	1.1	1.5	1.2	1.6	1.2	1.7	1.2	1.8	1.3	1.9	1.3	1.6		.4	2.0
RMS	3.8	2.3	3.7	2.3	3.9	2.2	4.0	2.2	4.1	2.2	4.2	2.2				
CORR L		.79(SLOPE= 1.07)											.39	0.00		-.34
CORR A													.22	0.00		-.28

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	1	4	4	8	4	10	0	1	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	1	1	8	12	7	1	2	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 21 BAFFIN CRUISE,OCT 1963

TRACK-095 KNOTS 004 DEGS WIND- 15 KNOTS 062 DEGS ACC- VERTICAL= 11 KMGL SURGE= 03 KMGL SWAY= 06 KMGL
LACOSTE RECORD NORMAL OCT 11
ASKANIA RECORD NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28445 SERVO OFF
ACCELERATION RECORDS INCOMPLETE CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
630	-.2	-1.9	-.1	-1.9	-.4	-1.8	-.5	-1.8	-.5	-1.7	-.2	-1.5	7.4	508.1(4312)	9.0	8.1
635	-.1	-1.6	-.4	-1.7	.4	-1.3	1.0	-1.0	1.5	-.7	1.9	-.4	6.8	507.7(4302)	8.7	7.6
640	-.4	-2.8	-.8	-3.1	0.0	-2.4	.4	-2.1	.6	-1.8	.6	-1.6	3.9	507.6(3472)	9.5	2.5
645	-.9	-2.9	-.9	-3.1	-.9	-2.7	-1.0	-2.6	-1.2	-2.5	-1.3	-2.5	2.7	507.8(3462)	9.2	2.8
650	-2.0	-3.0	-1.9	-3.1	-2.1	-3.0	-2.2	-3.0	-2.2	-3.0	-2.1	-2.9	2.4	508.1(3461)	10.2	1.8
655	-2.9	-3.9	-3.1	-3.9	-2.7	-3.9	-2.6	-3.8	-2.6	-3.7	-2.5	-3.7	2.5	509.2(3451)	10.1	2.3
700	-1.8	-3.1	-2.0	-3.2	-1.7	-3.0	-1.6	-2.9	-1.6	-2.9	-1.7	-2.9	3.6	509.9(3441)	9.2	4.3
705	-1.8	-2.8	-1.6	-2.8	-2.1	-2.8	-2.2	-2.9	-2.3	-3.0	-2.5	-3.1	4.2	510.3(3431)	9.5	4.2
710	-2.2	-2.7	-2.0	-2.6	-2.2	-2.8	-2.2	-3.0	-2.3	-3.2	-2.4	-3.3	4.9	510.5(3421)	9.2	5.6
715	-.9	-2.0	-.9	-1.8	-1.0	-2.1	-1.3	-2.2	-1.5	-2.3	-1.6	-2.5	5.3	509.4(3411)	9.3	5.7
720	-1.5	-2.3	-1.3	-2.2	-1.9	-2.5	-2.2	-2.6	-2.3	-2.7	-2.3	-2.7	5.3	509.2(3401)	9.6	5.4
725	-2.2	-2.8	-2.3	-2.7	-1.9	-2.8	-1.4	-2.8	-.9	-2.7	-.8	-2.7	5.5	509.4(3391)	9.6	5.7
730	-.6	-2.6	-.7	-2.6	0.0	-2.6	.6	-2.6	.8	-2.5	1.0	-2.3	5.6	509.4(3381)	9.4	5.9
735	.6	-2.7	.5	-2.8	.7	-2.6	.6	-2.4	.6	-2.3	.8	-2.2	5.1	509.3(3371)	9.3	5.0
740	.2	-3.0	-.2	-3.2	0.0	-2.8	-.2	-2.6	0.0	-2.4	.1	-2.3	4.0	509.2(3361)	9.5	3.5
745	.2	-2.3	.1	-2.3	.1	-2.2	.1	-2.2	.1	-2.1	.1	-2.1	3.8	509.1(3351)	9.7	3.9
750	0.0	-2.2	-.1	-2.3	0.0	-2.1	.2	-2.1	.3	-2.0	.5	-1.8	3.8	509.2(3341)	9.6	3.7
755	-.9	-3.2	-1.0	-3.3	-.8	-3.0	-.6	-2.9	-.5	-2.8	-.4	-2.6	3.1	510.1(3331)	9.7	2.6
800	-1.3	-3.4	-1.3	-3.5	-1.3	-3.3	-1.3	-3.2	-1.3	-3.2	-1.5	-3.3	2.5	510.3(3321)	9.6	2.2
805	-1.2	-2.9	-1.1	-2.9	-1.2	-3.0	-1.3	-3.0	-1.2	-3.0	-1.3	-3.1	2.7	510.2(3311)	9.6	2.8
810	-.5	-2.2	-.3	-2.1	-.7	-2.3	-.8	-2.5	-.9	-2.6	-.9	-2.7	3.4	509.9(2472)	9.6	3.6
815	-.6	-2.6	-.6	-2.4	-.8	-2.8	-1.2	-3.1	-1.6	-3.4	-1.9	-3.7	3.5	509.6(2462)	9.4	3.4
820	-1.1	-2.8	-.8	-2.6	-1.2	-3.1	-1.3	-3.3	-1.4	-3.6	-1.5	-3.7	4.4	509.4(2452)	9.6	4.9
825	.2	-2.3	.1	-2.1	.5	-2.4	.9	-2.5	1.3	-2.4	1.7	-2.3	5.6	509.1(2442)	9.5	6.3
830	1.7	-2.6	1.3	-2.7	2.1	-2.4	2.6	-2.2	3.1	-2.0	3.4	-1.7	4.9	508.7(2432)	9.9	4.1
835	2.3	-2.8	2.1	-3.0	2.6	-2.6	2.7	-2.4	2.7	-2.2	2.7	-2.1	3.2	508.4(2421)	10.0	2.4
840	1.7	-3.1	1.7	-3.1	1.6	-3.0	1.4	-3.0	1.2	-3.0	1.1	-3.0	2.7	508.8(2411)	9.6	2.6
845	1.8	-2.1	2.0	-2.1	1.4	-2.2	1.1	-2.3	.9	-2.4	.7	-2.5	3.4	508.7(2401)	10.0	3.5
850	1.4	-1.8	1.6	-1.6	1.2	-1.9	.9	-2.1	.6	-2.3	.3	-2.5	3.6	507.9(2382)	9.8	3.3
855	1.2	-1.4	1.5	-1.3	1.2	-1.5	1.3	-1.6	1.3	-1.7	1.1	-1.8	3.3	506.5(2372)	9.6	3.1
900	1.9	-.7	2.3	-.6	1.6	-.8	1.4	-.9	1.4	-.9	1.3	-1.0	3.3	505.3(2362)	9.7	3.3
905	1.6	-.8	1.5	-.8	1.7	-.9	1.8	-.9	1.8	-1.0	1.9	-1.1	3.0	504.7(2351)	9.6	2.6
910	1.8	-1.4	1.8	-1.2	1.9	-1.5	1.8	-1.7	1.6	-1.8	1.4	-2.0	2.7	504.5(2341)	9.5	2.5
915	1.6	-1.7	1.9	-1.5	1.2	-1.9	.8	-2.1	.6	-2.2	.6	-2.2	3.0	504.4(2331)	9.7	3.1
920	1.3	-1.7	1.2	-1.6	1.4	-1.6	1.7	-1.6	1.9	-1.5	2.2	-1.3	3.4	504.1(2312)	9.6	3.4
MEAN	-.1	-2.4	-.1	-2.3	0.0	-2.3	0.0	-2.3	0.0	-2.3	0.0	-2.3	3.9	508.4	9.5	3.9
DEV	1.4	.7	1.4	.7	1.4	.6	1.4	.6	1.5	.7	1.5	.7	1.2		.2	1.5
RMS	1.4	2.5	1.4	2.5	1.4	2.5	1.5	2.5	1.5	2.5	1.6	2.5				
CORR L		.62(SLOPE= 1.25)											-.14	-.01		-.19
CORR A													.15	-.01		.17

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	1	5	9	8	4	8	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	1	18	12	4	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 22 BAFFIN CRUISE,OCT 1963

TRACK-097 KNOTS 120 DEGS WIND- 15 KNOTS 051 DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL
LACOSTE RECORD NORMAL OCT 11
ASKANIA NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28380 SERVO OFF
ACCELERATION RECORDS INCOMPLETE CROSS COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1335	0.0	-7.8	0.0	-7.8	0.0	-7.9	0.0	-8.0	0.0	-8.1	0.0	-8.1	46.7	497.3(2652)	9.7	118.8
1340	2.1	-8.3	2.1	-8.3	2.2	-8.3	2.7	-8.2	3.3	-8.1	3.8	-8.0	47.3	498.2(2672)	9.8	118.3
1345	2.8	-9.1	2.5	-9.3	3.0	-8.8	3.2	-8.6	3.4	-8.3	3.7	-8.1	47.6	499.7(2701)	9.9	118.7
1350	2.0	-9.7	1.7	-10.1	2.4	-9.4	2.6	-9.1	2.8	-8.8	3.0	-8.4	47.0	501.2(2722)	9.8	119.6
1355	1.7	-9.8	1.3	-10.1	2.0	-9.5	2.1	-9.1	2.4	-8.8	2.9	-8.5	46.5	502.3(2742)	9.7	119.1
1400	2.1	-9.5	1.6	-9.8	2.4	-9.2	2.5	-9.0	2.6	-8.8	2.6	-8.5	46.7	503.8(2771)	9.7	118.4
1405	1.9	-9.1	1.8	-9.3	2.2	-8.8	2.7	-8.6	3.1	-8.3	3.2	-8.1	47.1	505.1(2791)	9.7	117.7
1410	-.3	-11.3	-.3	-11.6	-.1	-11.0	.2	-10.7	.7	-10.4	1.3	-10.0	47.3	508.8(3512)	9.7	117.2
1415	1.5	-10.1	1.0	-10.3	1.8	-9.8	2.1	-9.6	2.5	-9.4	3.1	-9.2	47.6	509.3(3532)	9.8	117.4
1420	4.3	-8.4	3.7	-8.6	4.8	-8.2	5.3	-8.1	5.6	-7.9	5.8	-7.7	48.4	509.6(3561)	10.0	117.9
1425	4.8	-8.7	4.6	-8.9	5.1	-8.5	5.4	-8.2	5.7	-7.9	5.8	-7.6	48.2	510.6(3582)	9.9	117.5
1430	3.9	-9.4	3.7	-9.7	4.3	-9.0	4.6	-8.7	4.9	-8.3	5.2	-7.9	47.2	511.7(3602)	9.7	118.0
1435	3.8	-9.2	3.6	-9.5	4.0	-8.9	4.2	-8.6	4.5	-8.4	4.8	-8.1	47.0	513.0(3622)	9.8	119.4
1440	3.0	-9.8	2.8	-10.1	3.1	-9.5	3.2	-9.2	3.4	-9.0	3.7	-8.7	47.0	515.0(3651)	9.9	119.8
MEAN	2.5	-9.3	2.3	-9.5	2.8	-9.0	3.1	-8.8	3.4	-8.6	3.7	-8.3	47.2	506.1	9.7	118.4
DEV	1.3	.8	1.2	.9	1.3	.7	1.3	.6	1.3	.6	1.2	.6	.5		0.0	.8
RMS	2.9	9.3	2.7	9.6	3.2	9.1	3.4	8.9	3.7	8.6	4.0	8.4				
CORR L		.72(SLOPE= 1.27)											.48	.01		.15
CORR A													.19	-.01		.12

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	1	0	6	2	3	1	0	0	0	0	0	0
NUMBER ASKANIA	1	4	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 23 BAFFIN CRUISE,OCT 1963

TRACK-104 KNOTS 300 DEGS WIND- 15 KNOTS 010 DEGS ACC- VERTICAL= 04 KMGL SURGE= 04 KMGL SWAY= 05 KMGL
LACOSTE RECORD NORMAL. SECOND MAJOR SWAY SPECTRA PEAK AT 4.5 SECS. OCT 11
ASKANIA NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28380 SERVO OFF
SPECTRA-VERT CENTER PERIOD= SECS,WIDTH= CPS.SURGE=11.1SECS,.03CPS.SWAY=10.0SECS,.07CPS.CROSS COUP=- 0.5 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1630	.7	-5.0	1.1	-4.6	.4	-5.4	.1	-5.7	-.2	-6.0	-.3	-6.2	-47.1	512.5(3621)	10.4	302.9
1635	.7	-5.4	.7	-5.2	.7	-5.6	.6	-5.8	.4	-5.9	.2	-6.0	-47.5	511.1(3592)	10.3	300.9
1640	.4	-5.8	.5	-5.7	.3	-6.0	.2	-6.2	-.1	-6.4	-.5	-6.6	-48.2	510.2(3572)	10.2	298.7
1645	-.4	-6.3	0.0	-6.1	-.6	-6.5	-.7	-6.7	-1.0	-7.0	-1.2	-7.2	-48.3	509.5(3551)	9.0	262.6
1650	-1.0	-7.0	-.8	-6.8	-1.1	-7.2	-1.1	-7.3	-.9	-7.4	-.7	-7.6	-48.3	509.1(3522)	10.1	297.7
1655	2.2	-4.9	2.1	-4.8	2.1	-5.1	1.8	-5.2	1.7	-5.3	1.6	-5.5	-48.5	506.2(3501)	14.0	319.5
1700	2.2	-4.7	2.6	-4.5	1.7	-4.9	1.1	-5.2	.3	-5.6	-.5	-6.1	-49.3	504.4(2781)	10.4	298.0
1705	.6	-4.6	1.4	-4.2	0.0	-5.1	-.5	-5.7	-1.1	-6.2	-1.6	-6.7	-48.9	502.9(2752)	10.4	299.7
1710	-.2	-5.5	.1	-5.0	-.4	-5.9	-.5	-6.2	-.6	-6.5	-.6	-6.7	-48.5	501.5(2731)	10.3	299.3
1715	.6	-5.4	.9	-5.2	.3	-5.6	.1	-5.8	0.0	-6.0	-.1	-6.2	-48.6	500.0(2702)	10.2	297.9
1720	3.4	-2.7	3.6	-2.5	3.2	-2.9	3.0	-3.1	2.8	-3.3	2.6	-3.5	-46.4	498.5(2681)	9.5	298.3
1725	1.6	-4.7	1.5	-4.6	1.8	-4.8	2.0	-4.8	2.0	-4.9	1.9	-4.9	-48.3	497.6(2661)	10.5	298.6
1730	0.0	-8.2	0.0	-8.2	0.0	-8.2	0.0	-8.2	0.0	-8.2	0.0	-8.1	-52.5	496.7(2631)	11.4	298.5
MEAN	.9	-5.4	1.1	-5.1	.7	-5.6	.5	-5.8	.2	-6.0	0.0	-6.2	-48.4	504.6	10.5	297.8
DEV	1.1	1.2	1.1	1.3	1.2	1.2	1.1	1.1	1.2	1.1	1.2	1.1	1.3		1.1	11.6
RMS	1.5	5.5	1.6	5.3	1.4	5.8	1.3	6.0	1.2	6.2	1.2	6.4				
CORR L		.89(SLOPE= 1.06)											.29	-.01		.41
CORR A													.71	0.00		.24

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	1	3	4	3	1	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	1	1	2	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 24 BAFFIN CRUISE,OCT 1963

TRACK-107 KNOTS 120 DEGS WIND- 12 KNOTS 054 DEGS ACC- VERTICAL= 24 KMGL SURGE= 04 KMGL SWAY= 07 KMGL
LACOSTE RECORD NORMAL OCT 11
ASKANIA NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28380 SERVO OFF
SPECTRA-VERT CENTER PERIOD= SECS,WIDTH= CPS.SURGE SECS,.02CPS.SWAY= 8.3SECS,.10CPS.CROSS COUP=+ 1.1 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1820	.6	0.0	1.0	0.0	.6	0.0	.3	0.0	-.2	0.0	-.7	0.0	49.9	502.9(2752)	10.8	122.3
1825	-2.2	-11.7	-2.0	-11.7	-1.9	-11.3	-1.4	-10.9	-.5	-10.6	.6	-10.3	50.0	504.4(2781)	10.7	121.4
1830	.9	-10.8	-.2	-11.1	1.7	-10.4	2.6	-10.1	3.5	-9.8	4.4	-9.6	51.1	506.2(3501)	10.8	119.2
1835	3.6	-10.8	3.0	-11.0	3.6	-10.5	3.6	-10.3	3.6	-10.0	3.5	-9.8	52.6	509.1(3522)	10.9	117.8
1840	3.6	-9.5	3.7	-9.6	3.3	-9.4	3.1	-9.2	3.2	-9.1	3.4	-8.9	53.2	509.5(3552)	11.0	118.3
1845	2.7	-9.7	2.4	-9.9	3.2	-9.6	3.5	-9.5	3.6	-9.4	3.7	-9.3	53.0	510.4(3581)	11.0	118.5
1850	2.8	-10.4	2.4	-10.6	3.3	-10.2	3.9	-10.0	4.2	-9.7	4.4	-9.5	53.1	511.7(3602)	10.9	117.2
1855	2.6	-11.4	2.3	-11.6	3.1	-11.1	3.6	-10.8	4.0	-10.5	4.3	-10.1	52.5	513.3(3631)	10.8	118.0
1900	2.1	-12.2	1.9	-12.5	2.2	-11.8	2.4	-11.5	2.8	-11.2	3.2	-10.8	51.8	515.0(3651)	10.6	117.5
MEAN	1.8	-10.8	1.6	-11.0	2.1	-10.5	2.4	-10.2	2.6	-10.0	2.9	-9.7	52.1	509.9	10.8	118.4
DEV	1.7	.8	1.6	.8	1.6	.7	1.6	.7	1.6	.6	1.6	.5	1.0		.1	1.2
RMS	2.5	10.8	2.3	11.0	2.7	10.6	2.9	10.3	3.2	10.1	3.4	9.8				
CORR L		.51(SLOPE= 1.04)											.88	.01		-.78
CORR A													.65	0.00		-.19

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	1	0	0	2	1	3	2	0	0	0	0	0	0	0
NUMBER ASKANIA	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 25 BAFFIN CRUISE,OCT 1963

TRACK-096 KNOTS 300 DEGS WIND- 10 KNOTS 060 DEGS ACC- VERTICAL= 08 KMGL SURGE= 05 KMGL SWAY= 05 KMGL
LACOSTE RECORD NORMAL. OCT 11
ASKANIA NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28380 SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.08CPS.SURGE=12.5SECS,.03CPS.SWAY= 9.1SECS,.12CPS.CROSS COUP=- 0.7 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2030	3.5	11.6	3.6	11.8	3.3	11.3	3.0	11.1	2.5	10.8	1.9	10.5	-46.2	512.5(3621)	9.8	298.9
2035	2.5	11.3	3.1	11.7	2.0	10.9	1.4	10.5	.9	10.0	.4	9.5	-46.0	511.4(3601)	9.5	296.4
2040	1.1	10.2	1.6	10.7	.7	9.8	.5	9.5	.4	9.1	.4	8.9	-45.9	510.4(3581)	9.6	297.1
2045	.9	9.2	.9	9.4	1.0	9.0	.9	8.9	.9	8.8	.7	8.7	-46.2	509.6(3561)	9.7	298.1
2050	-.6	7.5	-.4	7.6	-.8	7.4	-1.0	7.2	-1.4	7.0	-1.9	6.7	-47.5	509.3(3532)	10.0	297.3
2055	-1.2	7.7	-.6	8.0	-1.7	7.4	-2.3	7.0	-2.8	6.6	-3.2	6.1	-47.2	508.4(3511)	9.7	297.2
2100	2.0	11.3	2.5	11.8	1.5	10.8	1.0	10.4	.6	10.0	.5	9.7	-44.8	505.1(2791)	9.4	299.8
2105	2.6	11.6	2.8	12.0	2.4	11.3	2.2	11.0	1.9	10.7	1.7	10.5	-43.7	503.8(2771)	9.4	300.7
2110	2.0	10.7	2.1	10.9	2.1	10.6	2.1	10.4	2.1	10.3	2.0	10.2	-44.8	502.3(2742)	9.8	300.6
2115	2.5	10.7	2.6	10.8	2.4	10.6	2.4	10.5	2.5	10.4	2.5	10.4	-45.4	501.2(2722)	9.7	299.7
2120	2.7	10.5	2.7	10.6	2.6	10.5	2.6	10.5	2.5	10.4	2.5	10.3	-46.6	499.7(2701)	9.9	298.3
2125	0.0	12.3	0.0	12.3	0.0	12.2	0.0	12.1	0.0	11.9	0.0	11.8	-46.1	498.2(2672)	9.5	297.3
2130	0.0	11.2	0.0	11.4	0.0	11.1	0.0	11.0	0.0	10.9	0.0	10.9	-47.1	497.6(2661)	10.1	298.8
2135	0.0	8.3	0.0	8.3	0.0	8.3	0.0	8.3	0.0	8.3	0.0	8.3	-50.7	496.7(2631)	11.0	298.2
MEAN	1.6	10.2	1.9	10.5	1.4	10.0	1.1	9.8	.9	9.6	.6	9.4	-46.3	504.7	9.7	298.4
DEV	1.3	1.4	1.3	1.5	1.4	1.4	1.5	1.4	1.6	1.4	1.7	1.5	1.5		.3	1.3
RMS	2.1	10.4	2.3	10.6	2.0	10.2	1.9	10.0	1.9	9.8	1.9	9.6				
CORR L		.94(SLOPE= .93)											.58	0.00		.48
CORR A													.62	0.00		.35

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	2	0	2	2	4	1	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	9

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 26 BAFFIN CRUISE,OCT 1963

TRACK-100 KNOTS 120 DEGS WIND- 08 KNOTS 080 DEGS ACC- VERTICAL= 31 KMGL SURGE= 05 KMGL SWAY= 07 KMGL
LACOSTE RECORD NORMAL. OCT 11
ASKANIA NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28380 SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.04CPS.SURGE= 7.1SECS,.05CPS.SWAY= 5.0SECS,.05CPS. CROSS. COUP.=+ 1.3 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2230	5.6	0.0	6.3	0.0	5.2	0.0	4.9	0.0	4.8	0.0	5.0	0.0	48.0	500.0(2702)	9.9	117.0
2235	5.1	-8.2	4.7	-8.2	5.8	-8.0	6.6	-7.7	7.1	-7.5	7.3	-7.2	49.0	501.5(2702)	10.1	119.2
2240	5.8	-8.3	5.7	-8.6	6.5	-8.0	7.1	-7.6	7.5	-7.2	7.9	-6.9	49.0	502.9(2731)	10.1	117.3
2245	6.3	-8.5	6.0	-8.8	6.5	-8.2	7.0	-7.9	7.8	-7.5	8.9	-7.2	48.7	504.4(2781)	9.8	115.6
2250	7.4	-9.4	6.4	-9.7	7.9	-9.1	8.2	-8.8	8.5	-8.4	8.9	-8.0	47.9	506.2(3501)	9.9	119.2
2255	5.5	-11.5	5.0	-11.9	5.7	-11.1	5.8	-10.7	5.8	-10.3	5.9	-10.0	46.9	509.1(3522)	10.0	121.8
2300	5.4	-10.0	5.6	-10.3	5.1	-9.7	4.6	-9.5	4.3	-9.4	4.2	-9.3	47.0	509.4(3542)	10.2	122.3
2305	3.8	-9.5	3.8	-9.7	4.2	-9.3	3.6	-9.0	1.8	-8.7	.2	-8.4	47.1	509.9(3571)	9.8	118.5
2310	-.5	-7.5	.8	-7.8	-1.3	-7.3	-1.9	-7.2	-2.6	-7.0	-4.0	-7.0	48.5	510.8(3591)	10.2	118.3
2315	-4.7	-6.0	-3.0	-6.0	-6.0	-6.0	-5.7	-6.1	-3.8	-6.2	-1.5	-6.2	50.9	512.2(3612)	10.7	117.8
2320	-1.2	-8.1	-3.5	-8.2	.6	-8.0	2.0	-7.7	3.5	-7.3	5.4	-7.0	50.7	514.0(3641)	10.1	115.5
MEAN	3.5	-8.7	3.4	-8.9	3.6	-8.4	3.8	-8.2	4.0	-7.9	4.3	-7.7	48.5	508.0	10.0	118.5
DEV	3.6	1.4	3.4	1.5	3.9	1.3	4.0	1.2	3.9	1.1	4.1	1.1	1.3		.2	2.1
RMS	5.1	8.8	4.9	9.0	5.4	8.6	5.6	8.3	5.7	8.0	6.0	7.8				
CORR L		-.71(SLOPE=-1.90)											-.69	-.69		.29
CORR A													.84	0.00		-.63

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2	4	1	0	0	0	0
NUMBER ASKANIA	1	1	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 27 BAFFIN CRUISE,OCT 1963

TRACK-108 KNOTS 300 DEGS WIND- 05 KNOTS 228 DEGS ACC- VERTICAL= 08 KMGL SURGE= 06 KMGL SWAY= 06 KMGL
LACOSTE RECORD NORMAL OCT 12
ASKANIA NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28380 SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.06CPS.SURGE=12.5SECS,.03CPS.SWAY=10.0SECS,.08CPS.

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
100	-.4	-3.9	0.0	-3.7	-.7	-4.1	-1.0	-4.4	-1.4	-4.7	-1.6	-5.0	-52.8	514.0(0)	0.0	0.0
105	-1.4	-5.5	-1.1	-5.3	-1.6	-5.7	-1.7	-5.6	-1.7	-5.6	-1.8	-5.7	-52.8	510.8(3591)	11.0	296.4
110	-1.4	2.2	-1.3	2.3	-1.5	2.1	-1.7	1.9	-1.9	1.8	-2.1	1.7	-45.9	509.7(3562)	8.7	296.5
115	-2.1	-2.1	-1.9	-1.9	-2.3	-2.3	-2.4	-2.7	-2.6	-3.1	-2.8	-3.3	-49.7	509.5(3551)	11.4	298.8
120	-2.9	-11.9	-2.7	-11.6	-3.1	-12.1	-3.2	-12.3	-3.3	-12.6	-3.4	-12.9	-59.2	508.4(3511)	13.1	298.6
125	.4	-4.7	.6	-4.4	.1	-5.1	-.3	-5.5	-.8	-5.9	-1.2	-6.3	-54.0	505.1(2791)	10.4	297.6
130	2.3	-1.5	2.8	-1.0	1.7	-2.0	1.1	-2.5	.4	-3.0	-.2	-3.5	-50.3	503.4(2762)	10.8	299.5
135	.3	-2.5	1.0	-2.0	-.2	-2.9	-.8	-3.3	-1.3	-3.7	-1.7	-4.1	-50.2	502.0(2741)	10.8	300.8
140	-.7	-3.8	-.5	-3.4	-.9	-4.1	-1.1	-4.4	-1.2	-4.6	-1.2	-4.8	-51.0	500.6(2712)	11.0	299.5
145	-.1	-4.4	-.2	-4.2	-.1	-4.5	-.2	-4.7	-.3	-4.9	-.4	-5.0	-52.2	498.7(2682)	11.2	299.6
150	0.0	-3.9	0.0	-3.7	0.0	-4.0	0.0	-4.2	0.0	-4.5	0.0	-4.7	-52.0	497.6(2661)	10.9	298.8
155	0.0	-4.3	0.0	-4.0	0.0	-4.6	0.0	-4.8	0.0	-5.0	0.0	-5.2	-52.2	496.8(2632)	11.2	299.3
200	0.0	-5.8	0.0	-5.6	0.0	-6.0	0.0	-6.1	0.0	-6.2	0.0	-6.3	-52.5	496.9(2602)	11.1	298.9
MEAN	-.6	-4.0	-.3	-3.7	-.8	-4.2	-1.1	-4.5	-1.4	-4.7	-1.6	-5.0	-51.7	503.9	10.9	298.5
DEV	1.3	3.0	1.4	3.0	1.2	3.0	1.1	2.9	1.0	2.9	.9	3.0	2.8		.8	1.2
RMS	1.5	5.0	1.5	4.8	1.5	5.2	1.6	5.4	1.7	5.6	1.9	5.8				
CORR L		.40(SLOPE= .16)											.81	-.01		0.00
CORR A													.97	0.00		-.08

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	1	1	3	4	0	1	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	1	0	0	0	0	1	2	5	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 28 BAFFIN CRUISE,OCT 1963

TRACK-094 KNOTS 120 DEGS WIND- 04 KNOTS 223 DEGS ACC- VERTICAL= 35 KMGL SURGE= 07 KMGL SWAY= 07 KMGL
LACOSTE RECORD NORMAL.MINOR SWAY SPECTRA PEAK AT 12.5 SECS OCT 12
ASKANIA NORMAL EXCEPT FOR NOTE AT RUN 16. MD CONSTANT USED=28380 SERVO OFF
STECTRA-VERT CENTER PERIOD= 5.3SECS,WIDTH=.04CPS.SURGE= 7.1SECS,.06CPS.SWAY= 5.0SECS,.10CPS.

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
255	0.0	-8.4	0.0	-8.4	0.0	-8.2	0.0	-8.0	0.0	-7.8	0.0	-7.5	46.4	496.9(2602)	9.6	118.6
300	0.0	-8.6	0.0	-8.8	0.0	-8.4	0.0	-8.2	0.0	-7.9	0.0	-7.5	44.9	496.7(2631)	9.3	120.8
305	0.0	-8.7	0.0	-9.0	0.0	-8.4	0.0	-8.1	0.0	-7.8	0.0	-7.5	43.9	497.2(2651)	9.4	122.4
310	0.0	-6.8	0.0	-7.0	0.0	-6.5	0.0	-6.3	0.0	-6.2	0.0	-6.0	45.3	498.2(2672)	9.6	119.2
315	2.3	-7.3	2.8	-7.5	2.5	-7.1	3.1	-6.9	3.7	-6.7	4.2	-6.5	45.1	499.4(2692)	9.3	119.0
320	3.6	-7.4	3.1	-7.6	4.4	-7.2	5.4	-7.0	6.5	-6.8	7.4	-6.6	45.2	500.6(2712)	9.5	119.2
325	8.8	-5.7	8.2	-5.8	9.1	-5.4	9.4	-5.2	9.9	-4.8	10.8	-4.4	47.4	502.0(2741)	9.9	117.4
330	9.2	-6.6	8.2	-7.0	10.3	-6.2	11.1	-5.7	11.7	-5.3	12.0	-5.0	46.1	503.4(2762)	9.3	118.2
335	9.1	-7.9	8.8	-8.2	9.2	-7.6	9.3	-7.4	9.1	-7.1	8.9	-6.9	44.3	504.7(2782)	9.2	119.3
340	6.9	-8.6	6.9	-8.9	6.9	-8.4	7.0	-8.1	7.2	-7.8	7.6	-7.4	45.3	507.8(3502)	9.6	118.6
345	6.7	-8.5	6.0	-9.0	7.4	-8.1	8.1	-7.6	9.0	-7.2	9.6	-6.9	45.2	509.3(3531)	9.3	118.1
350	9.3	-7.4	8.9	-7.6	9.7	-7.1	9.8	-6.9	9.9	-6.7	10.0	-6.5	44.8	509.5(3551)	9.1	115.8
355	10.6	-5.6	10.7	-5.8	10.5	-5.4	10.2	-5.2	9.8	-4.9	9.2	-4.5	45.8	509.9(3571)	9.6	117.8
400	7.9	-4.9	8.5	-5.2	7.5	-4.5	7.5	-4.1	7.5	-3.8	7.5	-3.5	46.3	511.1(3592)	9.6	118.9
405	0.0	-6.1	0.0	-6.5	0.0	-5.6	0.0	-5.2	0.0	-4.8	0.0	-4.4	44.5	512.2(3612)	9.0	118.0
410	0.0	-5.1	0.0	-5.4	0.0	-4.9	0.0	-4.6	0.0	-4.3	0.0	-4.1	44.9	513.7(3632)	9.3	117.2
415	0.0	-2.6	0.0	-2.9	0.0	-2.5	0.0	-2.4	0.0	-2.2	0.0	-2.0	47.8	515.4(3652)	9.9	116.3
MEAN	7.4	-6.8	7.2	-7.0	7.7	-6.5	8.0	-6.2	8.4	-6.0	8.7	-5.7	45.4	505.1	9.4	118.5
DEV	2.5	1.6	2.4	1.6	2.4	1.6	2.3	1.6	2.1	1.6	2.0	1.6	1.0		.2	1.5
RMS	7.9	7.0	7.6	7.3	8.1	6.8	8.4	6.5	8.7	6.2	9.0	5.9				
CORR L		.35(SLOPE= .74)											.24	.01		-.50
CORR A													.63	.03		-.58

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	1	4	0	1
NUMBER ASKANIA	0	0	3	3	5	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 29 BAFFIN CRUISE,OCT 1963

TRACK-110 KNOTS 300 DEGS WIND- 09 KNOTS 251 DEGS ACC- VERTICAL= 09 KMGL SURGE= 10 KMGL SWAY= 06 KMGL
LACOSTE RECORD NORMAL OCT 12
ASKANIA NORMAL EXCEPT FOR NOTE AT RUN 16 SERVO ON
ACCELERATION DATA INCOMPLETE CROSS. COUP.=- 2.7 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
535	0.0	-4.8	.4	-4.4	-.4	-5.2	-.6	-5.7	-.8	-6.2	-1.0	-6.5	-50.6	512.5(3621)	10.5	298.0
540	.8	-4.7	.9	-4.6	.7	-4.7	.7	-4.7	.6	-4.8	.4	-5.0	-50.0	511.1(3592)	10.6	298.9
545	-.4	-5.9	-.3	-5.7	-.4	-6.0	-.5	-5.9	-.6	-5.6	-.5	-5.5	-52.0	509.9(3571)	11.3	299.1
550	-2.8	-7.8	-2.8	-7.8	-2.8	-7.9	-2.8	-7.9	-2.7	-7.9	-2.6	-7.9	-54.8	509.4(3542)	11.6	297.4
555	-2.4	-7.8	-2.4	-7.7	-2.5	-8.1	-2.5	-8.6	-2.6	-9.1	-2.8	-9.8	-55.1	508.8(3512)	11.4	296.8
600	2.4	-4.8	2.6	-4.4	2.2	-5.2	1.9	-5.7	1.4	-6.2	.8	-6.8	-53.4	505.1(2791)	11.2	299.2
605	1.8	-5.5	2.5	-5.1	1.3	-5.6	.9	-5.7	.4	-5.8	0.0	-5.8	-53.4	503.4(2762)	11.2	297.4
610	.9	-4.7	1.2	-4.6	.6	-4.8	.4	-4.9	.3	-4.9	.3	-5.0	-53.9	501.8(2732)	11.0	294.7
615	2.1	-3.3	2.1	-3.2	2.2	-3.5	2.2	-3.7	2.3	-4.0	2.1	-4.3	-53.6	500.3(2711)	11.1	296.7
620	4.7	-1.9	5.0	-1.4	4.3	-2.4	3.9	-2.9	3.5	-3.3	3.1	-3.9	-52.3	498.7(2682)	10.6	295.8
625	0.0	-4.6	0.0	-3.8	0.0	-5.4	0.0	-6.1	0.0	-6.7	0.0	-7.0	-53.2	497.6(2661)	11.2	296.9
630	0.0	-9.3	0.0	-9.0	0.0	-9.4	0.0	-9.6	0.0	-9.7	0.0	-9.7	-56.1	496.7(2631)	12.3	300.4
MEAN	.7	-5.4	.9	-5.1	.5	-5.6	.3	-5.9	.1	-6.1	0.0	-6.4	-53.2	504.6	11.1	297.6
DEV	2.1	1.9	2.2	2.0	2.0	1.8	1.9	1.8	1.8	1.8	1.7	1.8	1.6		.4	1.5
RMS	2.3	5.8	2.4	5.5	2.1	6.0	2.0	6.2	1.9	6.5	1.8	6.7				
CORR L		.92(SLOPE= 1.15)											.32	-.01		-.17
CORR A													.61	0.00		-.49

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	1	1	0	2	2	3	0	0	1	0	0	0	0	0	0
NUMBER ASKANIA	0	0	1	2	0	1	6	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 30 BAFFIN CRUISE,OCT 1963

TRACK-095 KNOTS 120 DEGS WIND- 15 KNOTS 162 DEGS ACC- VERTICAL= 44 KMGL SURGE= 13 KMGL SWAY= 10 KMGL
LACOSTE RECORD VERY ROUGH BUT SOME RESULTS. OCT 12
ASKANIA NORMAL SERVO ON
ACC INCOMPLETE. COMPUTED CC CORRELATES WELL WITH ASKANIA ERRORS CROSS. COUP.=+ 7.6 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
705	0.0	-4.9	0.0	-4.9	0.0	-3.8	0.0	-2.6	0.0	-1.6	0.0	-.8	46.4	497.0(2642)	9.4	115.4
710	3.0	-1.0	-3.0	-1.8	6.7	-.2	9.1	.4	10.6	1.2	11.0	2.3	46.4	498.0(2671)	9.4	116.2
715	10.2	3.4	11.0	2.3	8.0	4.3	5.4	5.2	3.4	6.1	2.2	6.9	47.5	499.1(2691)	9.9	117.7
720	-.8	5.1	-.3	4.4	-1.2	5.6	-1.7	6.0	-2.3	6.2	-2.5	6.0	46.5	500.6(2712)	9.5	118.0
725	-5.6	2.1	-6.2	2.3	-4.0	2.1	-2.1	2.2	-.5	2.4	.6	2.7	44.1	501.8(2732)	9.0	118.7
730	1.8	3.6	.9	3.0	2.8	4.4	3.3	5.0	2.9	5.5	2.4	5.8	45.7	503.1(2761)	9.8	118.8
735	2.1	6.0	2.5	5.9	1.5	5.8	1.3	5.4	1.5	5.3	1.8	5.2	47.1	504.4(2781)	9.7	117.5
740	-1.8	1.3	-2.0	1.4	-1.8	1.2	-1.1	1.2	.5	1.5	1.1	2.2	46.7	507.8(3502)	9.5	117.0
745	0.0	2.3	.3	1.4	0.0	3.3	0.0	4.6	0.0	5.8	0.0	6.7	47.2	509.1(3522)	9.7	116.7
750	0.0	7.6	0.0	7.0	0.0	7.8	0.0	7.9	0.0	7.8	0.0	7.6	47.8	509.5(3551)	9.8	117.3
755	0.0	6.7	0.0	6.9	0.0	6.4	0.0	6.0	0.0	5.6	0.0	5.5	47.6	509.9(3571)	9.8	118.0
800	0.0	3.3	0.0	3.1	0.0	3.7	0.0	4.5	0.0	5.3	0.0	6.1	46.7	511.4(3601)	9.6	118.4
805	0.0	5.4	0.0	4.5	0.0	6.3	0.0	6.9	0.0	7.3	0.0	7.6	45.9	512.2(3612)	9.6	120.2
810	0.0	6.9	0.0	6.7	0.0	7.1	0.0	7.2	0.0	7.4	0.0	7.7	46.5	513.7(3632)	9.9	120.5
815	0.0	5.7	0.0	5.5	0.0	5.9	0.0	6.5	0.0	7.1	0.0	7.8	46.4	515.9(3661)	9.8	120.8
MEAN	1.1	3.5	.4	3.1	1.5	3.9	1.7	4.4	2.0	4.8	2.0	5.2	46.5	506.2	9.6	118.0
DEV	4.2	3.2	4.7	3.2	3.8	3.0	3.6	2.8	3.6	2.6	3.6	2.4	.8		.2	1.4
RMS	4.4	4.8	4.7	4.5	4.2	5.0	4.1	5.2	4.2	5.5	4.2	5.8				
CORR L		.10(SLOPE= .21)											.68	0.00		-.21
CORR A													.28	.02		.65

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	1	0	0	0	1	1	1	0	2	1	0	0	0	0	0	0	1	0
NUMBER ASKANIA	0	0	0	0	0	0	1	0	0	0	1	0	1	2	2	1	2	2	2	1	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 31 BAFFIN CRUISE, OCT 1963

TRACK- KNOTS 300 DEGS WIND- 25 KNOTS 177 DEGS ACC- VERTICAL= 13 KMGL SURGE= 17 KMGL SWAY= 10 KMGL
LACOSTE TOO DISTURBED TO READ OCT 12
ASKANIA MINICOM AND ENOGRAPH RECORDS SHOW LARGE OSCS WITH PERIODS 15 TO 20 SECS SERVO ON
ACC INCOMPLETE. COMPUTED CC CORRELATES WELL WITH ASKANIA ERRORS CROSS. COUP.=- 7.2 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1320	0.0	-11.6	0.0	-10.8	0.0	-12.3	0.0	-12.8	0.0	-13.3	0.0	-13.7	-49.1	513.7(3632)	10.6	302.3
1325	0.0	-11.1	0.0	-10.7	0.0	-11.4	0.0	-11.0	0.0	-10.2	0.0	-9.5	-47.6	512.2(3612)	9.9	298.4
1330	0.0	-6.6	0.0	-7.3	0.0	-6.1	0.0	-5.7	0.0	-5.6	0.0	-5.7	-46.7	510.8(3591)	9.8	298.4
1335	0.0	-5.5	0.0	-5.5	0.0	-5.8	0.0	-6.1	0.0	-6.4	0.0	-6.7	-47.4	509.9(3571)	9.7	293.9
1340	0.0	-9.3	0.0	-8.8	0.0	-9.9	0.0	-10.4	0.0	-11.0	0.0	-11.7	-50.1	509.4(3542)	10.0	288.3
1345	0.0	-11.7	0.0	-11.1	0.0	-12.0	0.0	-12.4	0.0	-13.2	0.0	-14.0	-49.9	509.0(3521)	10.5	299.7
1350	0.0	-9.1	0.0	-8.5	0.0	-9.5	0.0	-9.8	0.0	-9.8	0.0	-9.6	-47.8	505.6(2792)	10.5	303.6
1355	0.0	-7.5	0.0	-7.4	0.0	-7.8	0.0	-8.0	0.0	-7.9	0.0	-7.8	-47.1	504.1(2772)	9.9	298.2
1400	0.0	-7.4	0.0	-7.2	0.0	-7.7	0.0	-8.1	0.0	-8.5	0.0	-9.0	-48.1	502.5(2751)	10.2	298.1
1405	0.0	-8.8	0.0	-8.3	0.0	-9.2	0.0	-9.7	0.0	-10.0	0.0	-10.2	-48.6	501.2(2722)	10.3	298.7
1410	0.0	-7.7	0.0	-7.9	0.0	-7.5	0.0	-7.4	0.0	-7.5	0.0	-7.7	-47.9	499.7(2701)	10.1	299.8
MEAN	0.0	-8.7	0.0	-8.5	0.0	-9.0	0.0	-9.2	0.0	-9.4	0.0	-9.6	-48.2	507.1	10.1	298.1
DEV	0.0	1.9	0.0	1.6	0.0	2.1	0.0	2.2	0.0	2.4	0.0	2.5	1.0		.2	3.9
RMS	0.0	9.0	0.0	8.7	0.0	9.3	0.0	9.5	0.0	9.7	0.0	9.9				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.64	-.01		-.29

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	3	0	3	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 32 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 120 DEGS WIND- 25 KNOTS 245 DEGS ACC- VERTICAL= 44 KMGL SURGE= 12 KMGL SWAY= 11 KMGL
LACOSTE RECORD TOO DISTURBED TO READ OCT 12
ASKANIA NORMAL SERVO ON
ACC INCOMPLETE.COMPUTED CC CORRELATES WELL WITH ASKANIA ERRORS CROSS. COUP.=+ 9.4 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1520	0.0	6.3	0.0	6.3	0.0	6.8	0.0	7.4	0.0	7.8	0.0	8.3	48.4	496.7(2612)	10.1	120.0
1525	0.0	9.0	0.0	8.7	0.0	9.3	0.0	9.4	0.0	9.5	0.0	10.1	49.0	496.9(2641)	10.4	120.5
1530	0.0	9.9	0.0	9.2	0.0	10.4	0.0	10.8	0.0	11.0	0.0	11.1	48.8	497.6(2661)	10.2	120.1
1535	0.0	8.9	0.0	8.8	0.0	9.2	0.0	10.0	0.0	11.0	0.0	11.4	47.9	499.1(2691)	10.1	120.6
1540	0.0	11.0	0.0	10.8	0.0	11.1	0.0	11.1	0.0	11.1	0.0	11.3	48.5	500.3(2711)	10.3	119.6
1545	0.0	11.7	0.0	11.2	0.0	11.9	0.0	11.8	0.0	11.6	0.0	11.4	49.9	501.8(2732)	10.3	117.5
1550	0.0	10.6	0.0	10.7	0.0	10.4	0.0	10.3	0.0	10.2	0.0	10.2	50.5	503.1(2761)	10.4	117.6
1555	0.0	8.5	0.0	8.6	0.0	8.7	0.0	9.2	0.0	9.9	0.0	10.6	50.6	504.7(2782)	10.4	117.8
1600	0.0	7.7	0.0	6.9	0.0	8.4	0.0	9.1	0.0	9.9	0.0	10.6	50.5	508.4(3511)	10.2	115.8
1605	0.0	10.1	0.0	9.4	0.0	10.8	0.0	11.4	0.0	11.8	0.0	12.1	50.2	509.3(3532)	10.1	115.2
1610	0.0	12.3	0.0	12.1	0.0	12.5	0.0	12.7	0.0	12.7	0.0	12.6	50.4	509.5(3552)	10.3	116.1
1615	0.0	12.1	0.0	12.3	0.0	11.5	0.0	10.7	0.0	9.9	0.0	8.7	51.1	510.4(3581)	10.4	115.6
1620	0.0	6.9	0.0	7.8	0.0	6.5	0.0	6.3	0.0	6.4	0.0	7.0	51.4	511.7(3602)	10.5	116.4
1625	0.0	5.0	0.0	4.1	0.0	6.0	0.0	7.3	0.0	8.8	0.0	10.7	50.2	513.3(3631)	10.3	118.8
1630	0.0	8.9	0.0	7.2	0.0	10.2	0.0	11.1	0.0	11.6	0.0	11.8	48.4	515.0(3651)	10.1	120.4
MEAN	0.0	9.2	0.0	8.9	0.0	9.5	0.0	9.9	0.0	10.2	0.0	10.5	49.7	505.1	10.2	118.1
DEV	0.0	2.0	0.0	2.1	0.0	1.9	0.0	1.7	0.0	1.5	0.0	1.4	1.0		.1	1.9
RMS	0.0	9.5	0.0	9.2	0.0	9.8	0.0	10.1	0.0	10.3	0.0	10.6				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.07	0.00		-.28

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4	2	5

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 33 BAFFIN CRUISE,OCT 1963

TRACK-097 KNOTS 300 DEGS WIND- 28 KNOTS 277 DEGS ACC- VERTICAL= 23 KMGL SURGE= 12 KMGL SWAY= 14 KMGL
LACOSTE RECORD VERY DISTURBED BUT SOME READINGS OCT 12
ASKANIA RESULTS UNCERTAIN DUE INTERRUPTED MINICOM RECORD SERVO OFF
ACC INCOMPLETE.CC AVERAGES -4.5 MGLS FIRST HALF,-2.8 MGLS SECOND HALF. CROSS. COUP.=- 3.5 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1750	0.0	.4	0.0	.4	0.0	.3	0.0	.2	0.0	.1	0.0	-.1	-46.3	514.0(3641)	9.7	297.5
1755	0.0	1.3	0.0	1.6	0.0	1.0	0.0	.6	0.0	.2	0.0	-.1	-46.1	512.5(3621)	9.7	298.2
1800	-6.3	-.5	-4.4	-.1	-7.2	-.8	-7.2	-1.1	-7.9	-1.3	-10.7	-1.5	-47.5	511.1(3592)	10.2	298.3
1805	-15.2	-.3	-9.4	-.2	-22.0	-.4	-27.2	-.5	-29.9	-.5	-30.0	-.6	-47.4	509.9(3571)	9.9	298.3
1810	-26.9	1.5	-27.9	1.5	-26.6	1.5	-27.2	1.5	-27.7	1.4	-25.5	1.3	-45.7	509.5(3551)	9.5	298.1
1815	-19.3	.4	-26.1	.7	-10.5	.2	-3.5	-.1	.4	-.4	2.3	-.7	-46.5	509.3(3531)	9.8	296.6
1820	4.8	.6	3.9	.9	5.2	.3	5.4	0.0	5.4	-.2	4.8	-.4	-46.5	507.8(3502)	9.6	296.8
1825	6.5	2.8	8.1	2.9	4.2	2.7	2.4	2.6	1.8	2.4	1.9	2.2	-46.3	504.7(2782)	9.7	298.2
1830	2.8	2.6	2.6	2.9	2.5	2.4	1.7	2.1	1.2	1.9	1.1	1.6	-47.1	503.1(2761)	10.0	298.7
1835	2.2	2.6	2.4	2.9	1.3	2.3	1.3	1.9	1.3	1.6	1.3	1.3	-47.2	501.8(2732)	10.0	299.0
1840	0.0	3.0	0.0	3.3	0.0	2.6	0.0	2.3	0.0	1.9	0.0	1.5	-46.4	500.6(2712)	9.7	298.8
MEAN	-6.4	1.3	-6.3	1.5	-6.6	1.1	-6.7	.8	-6.9	.6	-6.8	.4	-46.6	507.6	9.8	298.0
DEV	11.8	1.2	12.9	1.2	11.4	1.2	12.3	1.2	13.1	1.1	12.8	1.1	.5		.1	.7
RMS	13.4	1.8	14.4	2.0	13.3	1.6	14.1	1.5	14.8	1.3	14.6	1.2				
CORR L		.47(SLOPE= 4.41)											-.31	-.01		.23
CORR A													.27	-.02		.54

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	3	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	4	2	1	4	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 34 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS 120 DEGS WIND- 16 KNOTS 269 DEGS ACC- VERTICAL= 30 KMGL SURGE= 11 KMGL SWAY= 14 KMGL
LACOSTE ERCORD TOO DISTURBED TO READ OCT 12
ASKANIA RESULTS OMITTED DUE TO NO MINICOM RECORD SERVO OFF
ACC INCOMPLETE CROSS. COUP.=+ 3.7 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
9999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0(0)	0.0	0.0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 35 BAFFIN CRUISE, OCT 1963

TRACK-099 KNOTS 300 DEGS WIND- 24 KNOTS 281 DEGS ACC- VERTICAL= 26 KMGL SURGE= 11 KMGL SWAY= 14 KMGL
LACOSTE RECORD DISTURBED BUT READABLE. OCT 12
ASKANIA MINICOM AND ENOGRAPH SHOW LARGE OSCS WITH PERIODS 15 TO 20 SECS SERVO ON
ACC INCOMPLETE. CC CORRELATES WELL WITH ASKANIA ERRORS UNTIL 2220 CROSS. COUP.=- 2.8 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2200	-.7	.4	-3.7	.3	1.1	.3	2.6	.2	3.4	.1	3.0	-.3	-47.7	513.3(3631)	10.1	298.3
2205	3.2	.7	4.7	1.4	1.3	-.1	-.4	-.9	-1.9	-1.6	-3.5	-2.4	-47.4	511.9(3611)	9.9	297.8
2210	-2.5	-.9	-1.2	-.1	-3.6	-1.8	-5.0	-2.6	-5.8	-3.3	-5.2	-3.7	-46.4	510.6(3582)	9.6	298.0
2215	-2.0	-2.5	-4.0	-2.5	-.5	-2.5	-2.2	-2.7	-7.6	-3.1	-13.6	-3.5	-46.0	509.7(3562)	9.6	297.6
2220	-16.6	-3.6	-13.2	-3.1	-17.6	-4.3	-17.6	-4.9	-17.8	-5.5	-19.2	-6.0	-46.0	509.4(3541)	9.7	298.8
2225	-21.7	-6.2	-19.0	-5.8	-24.0	-6.6	-23.0	-6.9	-18.4	-7.0	-13.1	-7.2	-46.1	509.0(3521)	9.9	300.2
2230	-8.1	-5.5	-11.5	-5.6	-6.7	-5.1	-6.0	-4.7	-5.0	-4.4	-3.2	-4.3	-48.0	505.6(2792)	10.4	299.2
2235	.5	-3.4	-2.2	-3.3	3.3	-3.4	4.8	-3.4	5.3	-3.3	3.8	-3.2	-48.8	503.8(2771)	10.3	298.8
2240	1.0	-1.4	5.5	-1.5	-4.7	-1.3	-9.6	-1.2	-13.5	-1.1	-16.4	-.9	-48.3	502.5(2751)	10.1	298.2
2245	-17.0	0.0	-15.0	0.0	-18.5	0.0	-19.2	0.0	-19.3	0.0	-18.1	0.0	-48.2	501.2(2722)	10.2	298.5
2250	-14.1	0.0	-17.3	0.0	-10.4	0.0	-7.3	0.0	-4.1	0.0	-4.1	0.0	-48.9	499.7(2701)	10.4	298.7
MEAN	-7.0	-2.4	-6.9	-2.2	-7.3	-2.7	-7.5	-3.0	-7.7	-3.2	-8.1	-3.5	-47.1	508.4	9.9	298.5
DEV	8.3	2.2	8.2	2.3	8.7	2.1	8.6	2.1	8.1	2.0	7.8	2.0	1.0		.2	.7
RMS	11.0	3.4	10.8	3.3	11.4	3.5	11.5	3.7	11.2	3.9	11.3	4.1				
CORR L		.76(SLOPE= 2.72)											-.21	0.00		-.71
CORR A													-.16	0.00		-.82

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	4	0	0	1	0	0	0	0	0	2	1	0	2	0	1	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	1	1	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 36 BAFFIN CRUISE, OCT 1963

TRACK-099 KNOTS 120 DEGS WIND- 29 KNOTS 350 DEGS ACC- VERTICAL= 30 KMGL SURGE= 11 KMGL SWAY= 14 KMGL
LACOSTE RECORD VERY DISTURBED BUT SOME READINGS. OCT 12
ASKANIA MINICOM AND ENOGRAPH RECORDS DIP SHARPLY 0042 TO 0048 SERVO ON
ACC INCOMPLETE CROSS. COUP.=+ 3.8 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2350	0.0	3.1	0.0	3.1	0.0	3.4	0.0	3.4	0.0	3.4	0.0	3.7	46.3	497.6(2661)	9.9	119.2
2355	0.0	7.2	0.0	7.2	0.0	7.1	0.0	6.9	0.0	6.8	0.0	6.9	50.5	498.2(2672)	10.6	116.6
0	0.0	3.8	0.0	3.6	0.0	4.1	0.0	4.3	0.0	4.5	0.0	4.7	48.7	499.7(2701)	9.6	116.8
5	0.0	2.3	0.0	2.1	0.0	2.5	0.0	2.7	0.0	2.9	0.0	3.1	47.5	501.2(2722)	10.0	119.9
10	0.0	2.6	0.0	2.4	0.0	2.9	0.0	3.1	0.0	3.5	0.0	4.1	48.1	502.5(2751)	10.3	121.5
15	0.0	2.6	0.0	1.7	0.0	3.8	0.0	4.7	0.0	5.5	0.0	6.0	47.0	503.8(2771)	9.9	120.8
20	0.0	5.3	0.0	5.1	0.0	5.6	0.0	6.0	0.0	6.6	0.0	7.1	47.9	505.6(2792)	10.2	119.7
25	0.0	5.4	0.0	5.4	0.0	5.3	0.0	5.1	0.0	4.8	0.0	4.8	49.6	509.0(3521)	10.4	118.6
30	0.0	3.5	0.0	3.2	0.0	3.8	0.0	4.0	0.0	4.1	0.0	4.1	48.4	509.4(3541)	9.7	117.0
35	-24.7	3.1	-26.2	3.1	-24.2	3.2	-23.1	3.7	-19.8	2.8	-15.2	.3	47.7	509.7(3562)	9.7	115.8
40	-11.4	-2.1	-15.5	0.0	-8.7	-3.4	-7.6	-3.8	-7.8	-3.8	-7.7	-3.6	48.3	510.6(3582)	9.9	116.2
45	-7.7	-4.7	-9.0	-4.9	-5.5	-4.5	-3.9	-4.4	-3.0	-2.8	-2.4	.4	48.4	511.9(3611)	9.9	116.8
50	-2.4	2.9	-2.6	.2	-3.5	4.6	-5.4	5.3	-6.7	5.5	-6.9	5.6	49.5	513.3(3631)	10.3	117.3
55	-8.0	4.3	-8.4	4.1	-7.7	4.5	-7.9	4.6	-8.2	4.8	-8.4	5.3	50.1	515.4(3652)	10.3	117.2
MEAN	-10.8	2.8	-12.3	2.5	-9.9	3.0	-9.5	3.2	-9.1	3.4	-8.1	3.7	48.4	506.2	10.0	118.1
DEV	7.5	2.8	8.0	2.7	7.3	3.0	6.9	3.1	5.6	3.0	4.1	2.8	1.1		.2	1.7
RMS	13.2	4.0	14.7	3.8	12.4	4.4	11.8	4.6	10.7	4.6	9.1	4.7				
CORR L		-.15(SLOPE= -.32)											.72	0.00		.90
CORR A													.31	-.01		.16

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	2	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	1	0	0	1	0	0	0	1	5	3	2	0	1	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 37 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS 300 DEGS WIND- 37 KNOTS 358 DEGS ACC- VERTICAL= 34 KMGL SURGE= 19 KMGL SWAY= 14 KMGL
LACOSTE RECORD TOO DISTURBED TO READ OCT 13
ASKANIA RESULTS OMITTED DUE TO NO MINICOM RECORD. SERVO ON
SPECTRA-PLATFORM ORIENTATION IN AZIMUTH UNCERTAIN.

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
9999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0(0)	0.0	0.0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 38 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS 120 DEGS WIND- 27 KNOTS 359 DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL
LACOSTE RECORD TOO DISTURBED TO READ OCT 13
ASKANIA RESULTS OMITTED DUE TO NO MINICOM RECORD. SERVO OFF
ACC INCOMPLETE CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
9999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0(0)	0.0	0.0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 39 BAFFIN CRUISE,OCT 1963

TRACK-104 KNOTS 300 DEGS WIND- 38 KNOTS 001 DEGS ACC- VERTICAL= 26 KMGL SURGE= 12 KMGL SWAY= 17 KMGL
LACOSTE RECORD TOO DISTURBED TO READ.
OCT 13
ASKANIA NORMAL
SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.09CPS.SURGE=11.0SECS,.07CPS.SWAY= 7.2SECS,.15CPS. CROSS. COUP. =- 3.7 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
725	0.0	-.3	0.0	-.3	0.0	-1.1	0.0	-1.9	0.0	-2.5	0.0	-2.9	-47.4	513.3(3631)	10.4	303.5
730	0.0	-2.1	0.0	-1.7	0.0	-2.6	0.0	-3.1	0.0	-3.2	0.0	-3.1	-47.6	511.9(3611)	10.6	302.9
735	0.0	-3.2	0.0	-3.1	0.0	-3.3	0.0	-3.4	0.0	-3.6	0.0	-4.0	-48.8	510.6(3582)	10.6	300.5
740	0.0	-3.5	0.0	-3.2	0.0	-3.7	0.0	-3.9	0.0	-4.0	0.0	-4.0	-49.1	509.6(3561)	10.5	300.5
745	0.0	-3.3	0.0	-3.4	0.0	-3.3	0.0	-3.4	0.0	-3.7	0.0	-4.0	-48.7	509.3(3532)	10.5	301.1
750	0.0	-3.6	0.0	-3.2	0.0	-4.0	0.0	-4.4	0.0	-4.9	0.0	-5.5	-48.5	508.8(3512)	10.4	300.5
755	0.0	-1.9	0.0	-1.6	0.0	-2.2	0.0	-2.6	0.0	-3.1	0.0	-3.5	-48.2	505.1(2791)	10.3	300.3
800	0.0	-1.4	0.0	-1.2	0.0	-1.6	0.0	-1.7	0.0	-1.7	0.0	-1.6	-47.7	503.4(2762)	10.2	300.1
805	0.0	-1.3	0.0	-1.2	0.0	-1.4	0.0	-1.3	0.0	-1.1	0.0	-.9	-48.6	502.0(2741)	10.3	297.6
810	0.0	-1.0	0.0	-1.0	0.0	-1.3	0.0	-1.7	0.0	-2.9	0.0	-4.7	-50.1	500.6(0)	10.5	296.5
815	0.0	-4.7	0.0	-2.8	0.0	-6.4	0.0	-8.1	0.0	-9.8	0.0	-11.5	-49.7	499.1(2691)	10.4	298.1
820	0.0	-10.6	0.0	-9.2	0.0	-10.6	0.0	-10.6	0.0	-10.6	0.0	-10.6	-48.8	497.8(2662)	10.2	298.6
MEAN	0.0	-3.0	0.0	-2.6	0.0	-3.4	0.0	-3.8	0.0	-4.2	0.0	-4.6	-48.6	505.9	10.4	300.0
DEV	0.0	2.5	0.0	2.2	0.0	2.5	0.0	2.6	0.0	2.8	0.0	3.0	.7		.1	1.9
RMS	0.0	4.0	0.0	3.5	0.0	4.3	0.0	4.7	0.0	5.1	0.0	5.6				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.27	.01		.23

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	1	0	0	0	0	0	1	1	3	2	3	1	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 40 BAFFIN CRUISE,OCT 1963

TRACK-098 KNOTS 120 DEGS WIND- 33 KNOTS 359 DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL
LACOSTE RECORD TOO DISTURBED TO READ OCT 13
ASKANIA NORMAL SERVO ON
ACC INCOMPLETE CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
915	0.0	4.8	0.0	4.8	0.0	4.7	0.0	4.5	0.0	4.5	0.0	4.6	47.7	499.7(2701)	9.9	118.7
920	0.0	3.8	0.0	3.6	0.0	4.1	0.0	4.3	0.0	4.5	0.0	4.6	47.9	500.9(2721)	10.0	118.5
925	0.0	3.3	0.0	3.3	0.0	3.4	0.0	3.6	0.0	3.7	0.0	3.7	48.1	502.3(2742)	10.0	118.4
930	0.0	1.5	0.0	1.5	0.0	1.5	0.0	1.6	0.0	1.7	0.0	1.9	47.3	503.8(2771)	9.8	118.9
935	0.0	.6	0.0	.4	0.0	.7	0.0	.8	0.0	1.0	0.0	1.2	47.2	505.1(2791)	9.7	117.7
940	0.0	-1.7	0.0	-1.9	0.0	-1.5	0.0	-1.3	0.0	-.9	0.0	-.5	47.8	508.8(3512)	9.9	117.9
945	0.0	-.2	0.0	-.7	0.0	.3	0.0	.7	0.0	1.2	0.0	1.5	48.1	509.3(3532)	10.0	119.2
950	0.0	1.3	0.0	1.0	0.0	1.7	0.0	1.9	0.0	2.1	0.0	2.2	47.8	509.6(3561)	9.9	118.5
955	0.0	.6	0.0	.5	0.0	.8	0.0	1.0	0.0	1.3	0.0	1.7	46.9	510.4(3581)	9.6	118.0
1000	0.0	.5	0.0	.1	0.0	1.1	0.0	1.8	0.0	2.3	0.0	2.9	46.6	511.7(3602)	9.7	118.5
1005	0.0	2.1	0.0	1.7	0.0	2.5	0.0	2.8	0.0	3.2	0.0	3.6	46.7	513.0(3622)	9.8	119.9
MEAN	0.0	1.5	0.0	1.3	0.0	1.7	0.0	1.9	0.0	2.2	0.0	2.4	47.4	506.7	9.8	118.5
DEV	0.0	1.7	0.0	1.8	0.0	1.7	0.0	1.6	0.0	1.5	0.0	1.4	.5		.1	.5
RMS	0.0	2.3	0.0	2.3	0.0	2.5	0.0	2.6	0.0	2.7	0.0	2.9				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.17	-.01		.27

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	1	0	1	4	2	1	1	1	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 41 BAFFIN CRUISE,OCT 1963

TRACK-107 KNOTS 300 DEGS WIND- 39 KNOTS 003 DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL
LACOSTE RECORD MISSING OCT 13
ASKANIA NORMAL BUT RUN IS VERY SHORT. SERVO ON
ACC INCOMPLETE CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1135	0.0	.5	0.0	1.2	0.0	-.2	0.0	-.9	0.0	-1.6	0.0	-2.3	-51.5	513.3(3631)	10.8	298.2
1140	0.0	-1.0	0.0	-.3	0.0	-1.6	0.0	-2.0	0.0	-2.3	0.0	-2.4	-51.0	511.7(3602)	10.7	298.0
1145	0.0	-.4	0.0	-.3	0.0	-.5	0.0	-.7	0.0	-1.0	0.0	-1.3	-50.0	510.6(3582)	10.5	298.7
1150	0.0	-.2	0.0	.2	0.0	-.6	0.0	-1.1	0.0	-1.5	0.0	-2.0	-49.5	509.6(3561)	10.4	298.5
MEAN	0.0	-.2	0.0	.2	0.0	-.7	0.0	-1.1	0.0	-1.6	0.0	-2.0	-50.5	511.3	10.6	298.3
DEV	0.0	.5	0.0	.6	0.0	.5	0.0	.4	0.0	.4	0.0	.4	.7		.1	.2
RMS	0.0	.6	0.0	.6	0.0	.9	0.0	1.3	0.0	1.7	0.0	2.0				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													-.23	0.00		.18

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 42 BAFFIN CRUISE,OCT 1963

TRACK-103 KNOTS 120 DEGS WIND- 11 KNOTS 281 DEGS ACC- VERTICAL= 13 KMGL SURGE= 06 KMGL SWAY= 10 KMGL
LACOSTE RECORD NORMAL. OCT 15
ASKANIA NORMAL SERVO ON
ACC INCOMPLETE CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
645	-10.1	1.3	-8.6	1.3	-12.2	.8	-14.3	.2	-15.7	-.4	-16.2	-.9	50.3	505.8(1792)	10.5	119.6
650	-14.5	.6	-14.3	1.0	-14.3	.2	-13.6	-.2	-12.3	-.7	-11.2	-1.1	50.0	503.6(2521)	10.5	119.8
655	-7.8	.7	-8.8	1.3	-6.2	.1	-4.5	-.5	-3.5	-1.1	-3.1	-1.8	49.5	500.8(2542)	10.4	120.3
700	-.5	.1	-.5	.8	-.9	-.6	-1.5	-1.2	-2.3	-1.9	-3.0	-2.4	50.0	498.7(2571)	10.4	118.2
705	-1.6	-.8	-1.1	-.5	-1.9	-1.0	-2.1	-1.2	-2.2	-1.2	-2.3	-1.1	50.6	497.3(2592)	10.2	114.7
710	-1.0	.6	-.9	.3	-1.3	.9	-1.7	1.3	-2.5	1.6	-3.4	1.9	51.4	496.7(2621)	10.4	115.0
715	-5.6	.7	-4.9	.4	-5.9	1.1	-5.9	1.6	-5.8	2.1	-5.6	2.6	50.4	497.2(2651)	10.1	116.2
720	-8.0	.1	-8.4	-.2	-7.3	.5	-6.2	.8	-4.8	1.1	-3.3	1.4	48.3	498.0(2671)	9.8	117.5
725	-3.4	.6	-4.5	.2	-2.7	.8	-2.5	1.0	-2.7	1.2	-2.8	1.4	48.5	499.4(2692)	10.1	117.8
730	-4.1	.5	-4.0	.2	-4.0	.9	-4.0	1.3	-3.8	1.7	-3.7	2.0	48.8	500.9(2721)	10.1	118.0
735	-4.8	1.3	-4.8	.9	-4.8	1.7	-4.6	2.0	-4.1	2.4	-3.6	2.7	49.2	502.3(2742)	10.3	119.4
740	-3.9	2.3	-4.4	1.9	-3.5	2.6	-3.1	2.9	-2.8	3.4	-2.4	3.8	49.5	503.4(2762)	10.4	119.7
745	-3.8	2.4	-4.2	2.0	-3.4	2.8	-2.9	3.2	-2.3	3.6	-1.8	3.9	49.4	505.1(2791)	10.2	117.9
750	-4.8	1.0	-4.9	.8	-4.7	1.1	-4.8	1.2	-4.7	1.3	-4.9	1.4	49.9	508.8(3512)	10.4	118.5
755	-5.7	1.2	-5.2	1.1	-6.4	1.3	-7.1	1.4	-7.4	1.5	-7.5	1.6	50.3	509.4(3541)	10.6	119.9
800	-8.2	1.1	-8.1	1.0	-8.4	1.3	-8.6	1.5	-8.7	1.8	-8.4	2.0	50.0	509.7(3562)	10.4	118.9
805	-8.2	1.5	-9.1	1.3	-7.2	1.6	-6.6	1.8	-6.3	2.0	-6.2	2.2	50.1	510.6(3582)	10.4	118.7
810	-6.4	2.0	-6.6	1.8	-5.8	2.1	-5.0	2.2	-4.3	2.4	-3.8	2.7	51.0	511.9(3611)	10.8	119.5
815	-5.1	1.4	-5.3	1.2	-5.0	1.7	-5.1	2.1	-5.0	2.6	-4.6	3.2	51.3	513.7(3632)	10.7	119.3
820	-7.6	.3	-8.1	-.3	-7.3	.8	-7.3	1.2	-7.4	1.4	-7.3	1.6	50.0	515.9(3661)	10.4	120.0
MEAN	-5.7	.9	-5.8	.8	-5.6	1.0	-5.5	1.1	-5.4	1.2	-5.2	1.3	49.9	504.4	10.3	118.4
DEV	3.2	.7	3.2	.6	3.2	.9	3.3	1.1	3.4	1.4	3.4	1.7	.8		.2	1.5
RMS	6.6	1.2	6.7	1.1	6.5	1.4	6.5	1.6	6.4	1.9	6.3	2.2				
CORR L		-.12(SLOPE= -.54)											.08	-.01		-.56
CORR A													.08	.02		.48

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	1	1	0	5	0	3	3	3	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	1	3	12	4	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 43 BAFFIN CRUISE,OCT 1963

TRACK-101 KNOTS 300 DEGS WIND- 12 KNOTS 272 DEGS ACC- VERTICAL= 11 KMGL SURGE= 05 KMGL SWAY= 07 KMGL
LACOSTE RECORD NORMAL. OCT 15
ASKANIA MINICOM OSC PLUS MINUS 10 MGLS PERIOD 15 MINUS AT START OF RUN. SERVO ON
ACC INCOMPLETE CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
940	.2	0.0	.6	0.0	-.1	0.0	-.5	0.0	-.9	0.0	-1.5	0.0	-47.9	513.0(3622)	10.2	299.4
945	-.1	-10.6	.4	-10.6	-.6	-9.9	-.9	-8.9	-1.1	-7.9	-1.2	-7.2	-47.6	511.4(3601)	10.0	298.7
950	-.5	-5.4	-.2	-6.2	-.7	-4.7	-.9	-4.4	-.9	-4.9	-.8	-5.8	-47.6	510.4(3581)	10.1	298.5
955	-.3	-6.5	-.4	-5.4	-.4	-7.3	-.7	-7.9	-1.2	-8.1	-1.6	-7.9	-48.1	509.5(3552)	10.2	298.3
1000	-1.4	-6.7	-1.1	-7.4	-1.6	-6.0	-1.6	-5.4	-1.7	-4.8	-1.9	-4.3	-47.8	509.3(3531)	10.0	298.3
1005	-1.1	-2.9	-.9	-3.3	-1.5	-2.7	-1.8	-2.6	-2.1	-2.8	-2.4	-3.0	-47.6	508.4(3511)	10.1	299.0
1010	.8	.2	1.2	.6	.3	-.3	-.3	-.8	-1.0	-1.1	-1.6	-1.5	-47.8	504.7(2782)	10.2	299.4
1015	-.6	-.4	-.2	-.1	-.8	-.7	-.9	-1.0	-.9	-1.3	-.9	-1.6	-48.0	503.1(2761)	10.2	298.9
1020	-.3	-1.3	-.2	-.9	-.4	-1.7	-.4	-1.9	-.4	-2.2	-.4	-2.3	-48.6	501.8(2732)	10.3	298.1
1025	.7	-1.2	.9	-1.0	.6	-1.4	.4	-1.6	.1	-1.8	-.3	-2.1	-48.7	500.3(2711)	10.3	298.3
1030	.4	-1.4	.7	-1.1	.2	-1.6	-.1	-1.8	-.4	-1.9	-.6	-2.2	-48.9	499.1(2691)	10.3	297.9
1035	-.1	-1.6	.2	-1.4	-.4	-1.7	-.7	-1.7	-1.0	-1.7	-1.4	-1.6	-49.4	497.8(2662)	10.4	297.8
1040	-.6	-.3	-.3	-.5	-1.1	-.2	-1.4	0.0	-1.7	.1	-1.9	.2	-49.3	496.9(2641)	10.4	298.6
1045	-1.3	1.2	-1.0	1.1	-1.4	1.2	-1.2	1.3	-1.0	1.4	-.7	1.6	-48.5	496.7(2612)	10.2	298.9
1050	-1.6	.6	-1.9	.4	-1.2	.8	-.9	1.2	-.6	1.6	-.2	2.1	-48.8	497.6(2591)	10.4	298.9
1055	-1.4	.9	-1.9	.4	-1.1	1.4	-.8	1.9	-.5	2.3	-.2	2.7	-49.2	499.0(2562)	10.4	298.6
1100	-1.7	1.4	-1.9	1.0	-1.6	1.8	-1.4	2.2	-1.0	2.7	-.6	3.1	-48.5	501.4(2541)	10.2	298.8
1105	-2.5	1.2	-2.9	.8	-2.1	1.5	-1.7	1.9	-1.3	2.3	-.9	2.6	-48.1	504.1(2512)	10.2	299.6
1110	-2.4	1.0	-3.0	.5	-1.8	1.4	-1.2	1.9	-.6	2.3	.1	2.7	-48.1	506.1(1791)	10.3	300.0
1115	-1.4	0.0	-2.0	0.0	-.9	0.0	-.5	0.0	-.2	0.0	0.0	0.0	-48.3	508.0(1762)	10.3	299.8
MEAN	-.7	-1.7	-.6	-1.8	-.8	-1.6	-.8	-1.5	-.9	-1.4	-.9	-1.3	-48.3	503.2	10.2	298.7
DEV	.9	3.2	1.2	3.2	.7	3.2	.5	3.2	.5	3.2	.6	3.3	.5		.1	.5
RMS	1.2	3.7	1.4	3.8	1.1	3.6	1.0	3.6	1.1	3.6	1.2	3.6				
CORR L		-.32(SLOPE= -.09)											-.02	0.00		-.49
CORR A													-.50	-.02		.37

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	4	7	7	2	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	1	0	0	0	1	1	1	0	1	1	3	3	6	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 44 BAFFIN CRUISE,OCT 1963

TRACK-100 KNOTS 120 DEGS WIND- 15 KNOTS 257 DEGS ACC- VERTICAL= 08 KMGL SURGE= 02 KMGL SWAY= 06 KMGL
LACOSTE RECORD NORMAL OCT 15
ASKANIA NORMAL. ANTIFRICTION MOTOR RESET FROM ZERO TO 12 BEFORE START. SERVO ON
ACC INCOMPLETE CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1650	-.8	1.1	-.1	1.7	-1.7	.6	-2.5	.2	-3.2	-.2	-3.7	-.7	48.4	504.5(2511)	10.1	119.8
1655	-1.7	1.3	-1.3	1.7	-2.1	.9	-2.7	.5	-3.3	.2	-3.9	-.2	48.2	501.9(2532)	10.2	120.4
1700	-1.8	1.8	-1.5	2.2	-2.0	1.4	-2.2	1.0	-2.5	.5	-2.8	0.0	47.9	499.3(2561)	10.2	120.9
1705	-1.6	1.3	-1.1	1.7	-2.1	.8	-2.5	.4	-2.8	-.1	-2.9	-.4	48.1	497.8(2582)	10.1	119.0
1710	-1.5	.9	-1.3	1.2	-1.8	.8	-2.1	.7	-2.5	.7	-2.6	.9	48.8	496.8(2611)	10.0	117.0
1715	-2.4	1.4	-2.4	1.1	-2.3	1.7	-2.1	2.1	-1.8	2.6	-1.5	3.0	48.8	496.7(2631)	9.9	116.4
1720	-2.5	2.3	-2.7	1.8	-2.4	2.7	-2.3	3.1	-2.2	3.5	-2.0	3.8	48.3	497.3(2652)	9.8	116.5
1725	-3.4	2.7	-3.5	2.3	-3.5	3.1	-3.5	3.5	-3.5	3.8	-3.3	4.1	47.9	498.5(2681)	9.8	117.7
1730	-4.7	2.7	-4.9	2.5	-4.2	2.9	-3.8	3.0	-3.5	3.0	-3.2	2.8	47.9	500.0(2702)	9.9	117.7
1735	-3.4	2.3	-3.6	2.4	-3.2	2.1	-2.9	2.1	-2.8	2.1	-2.6	2.2	48.6	501.2(2722)	10.0	116.8
1740	-2.8	1.9	-3.0	1.8	-2.7	2.2	-2.3	2.6	-1.9	3.1	-1.6	3.6	49.5	502.5(2751)	10.2	117.1
1745	-3.1	2.4	-3.4	1.8	-2.7	3.0	-2.4	3.5	-2.0	4.0	-1.6	4.5	49.3	504.1(2772)	10.1	117.3
1750	-3.8	2.2	-4.4	1.7	-3.3	2.7	-2.8	3.2	-2.4	3.6	-2.1	3.9	48.7	506.2(2801)	10.0	117.6
1755	-4.8	1.3	-5.1	.9	-4.4	1.5	-4.1	1.7	-3.8	1.9	-3.6	2.0	48.5	509.0(3521)	10.0	118.3
1800	-3.5	2.1	-3.7	1.9	-3.4	2.2	-3.4	2.3	-3.3	2.5	-3.1	2.6	48.8	509.4(3542)	10.2	118.7
1805	-3.3	2.5	-3.4	2.3	-3.2	2.7	-3.2	2.9	-3.2	3.1	-3.3	3.3	49.0	509.9(3571)	10.2	118.9
1810	-4.4	2.5	-4.3	2.3	-4.4	2.7	-4.3	2.9	-4.0	3.1	-3.7	3.3	48.9	510.8(3591)	10.2	119.1
1815	-4.5	2.3	-4.9	2.1	-4.2	2.6	-3.8	2.8	-3.4	3.0	-2.9	3.2	49.1	512.2(3612)	10.3	119.5
1820	-3.8	2.1	-4.3	1.8	-3.3	2.4	-2.9	2.7	-2.5	2.9	-2.2	3.2	49.2	513.7(3632)	10.3	119.5
1825	-4.3	0.0	-4.6	0.0	-3.9	0.0	-3.5	0.0	-3.2	0.0	-2.9	0.0	49.0	515.9(3661)	10.2	119.3
MEAN	-3.1	1.9	-3.1	1.8	-3.0	2.0	-2.9	2.1	-2.8	2.2	-2.7	2.3	48.6	503.7	10.0	118.3
DEV	1.1	.5	1.4	.4	.8	.8	.6	1.0	.6	1.3	.7	1.6	.4		.1	1.3
RMS	3.3	2.0	3.5	1.9	3.2	2.2	3.0	2.4	3.0	2.6	2.9	2.9				
CORR L		-.66(SLOPE=-1.37)											-.26	-.03		.10
CORR A													.08	.01		-.16

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	2	5	6	5	2	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	6	9	4	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 45 BAFFIN CRUISE,OCT 1963

TRACK-099 KNOTS 300 DEGS WIND- 23 KNOTS 235 DEGS ACC- VERTICAL= 08 KMGL SURGE= 04 KMGL SWAY= 12 KMGL
LACOSTE RECORD NORMAL OCT 15
ASKANIA NORMAL SERVO ON
SPECTRA-VERT CENTER PERIOD= 4.8SECS,WIDTH=.08CPS.SURGE=14.3SECS,.03CPS.SWAY= 4.7SECS,.12CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1940	.8	.4	1.2	.9	.4	-.1	.1	-.6	-.2	-1.0	-.5	-1.4	-47.8	514.0(3641)	10.2	299.8
1945	1.0	.2	1.4	.5	.6	-.1	.3	-.4	-.1	-.7	-.6	-1.0	-47.7	512.2(3612)	10.0	298.0
1950	-.2	-.5	.2	-.2	-.7	-.9	-1.1	-1.4	-1.6	-1.8	-2.0	-2.1	-48.1	511.1(3592)	10.0	296.7
1955	-.5	-.7	-.2	-.3	-.9	-1.1	-1.2	-1.5	-1.6	-1.8	-1.8	-2.1	-47.4	509.9(3571)	9.9	298.1
2000	-.7	-1.1	-.5	-.8	-.9	-1.3	-1.0	-1.5	-1.2	-1.7	-1.4	-1.9	-46.5	509.5(3551)	9.8	299.2
2005	-1.3	-1.9	-1.1	-1.6	-1.6	-2.2	-1.9	-2.5	-2.4	-2.8	-2.9	-3.1	-46.7	509.1(3522)	9.7	297.0
2010	-.6	-.8	-.2	-.4	-1.1	-1.2	-1.5	-1.6	-1.9	-2.0	-2.4	-2.4	-46.9	506.2(3501)	9.9	298.8
2015	-.9	-.8	-.5	-.5	-1.2	-1.1	-1.5	-1.4	-1.6	-1.7	-1.7	-2.0	-46.7	504.4(2781)	10.0	299.9
2020	-.4	-1.0	-.3	-.6	-.6	-1.3	-.9	-1.6	-1.2	-2.0	-1.5	-2.2	-46.8	502.9(2752)	9.7	296.9
2025	-1.3	-2.0	-1.0	-1.7	-1.6	-2.2	-1.9	-2.4	-2.2	-2.6	-2.4	-2.8	-47.4	501.8(2732)	10.2	299.7
2030	-1.1	-1.4	-.8	-1.2	-1.2	-1.6	-1.4	-1.7	-1.5	-1.8	-1.7	-1.9	-47.4	500.3(2711)	10.4	302.3
2035	-.5	-.7	-.5	-.7	-.5	-.8	-.6	-.9	-.8	-1.0	-1.0	-1.2	-47.7	498.7(2682)	10.2	299.1
2040	0.0	-.1	.2	0.0	-.2	-.3	-.4	-.4	-.5	-.6	-.7	-.8	-47.6	497.6(2661)	9.9	297.7
2045	.2	.4	.6	.5	-.1	.2	-.4	0.0	-.5	-.1	-.6	-.1	-47.0	496.9(2641)	9.7	296.9
2050	-.4	.1	-.4	.1	-.4	.2	-.4	.3	-.4	.5	-.3	.7	-47.1	496.7(2612)	9.7	296.0
2055	-.4	.7	-.6	.4	-.2	.9	.1	1.3	.3	1.6	.4	2.1	-46.4	497.6(2591)	9.6	297.1
2100	-.7	1.2	-.9	.8	-.6	1.7	-.5	2.1	-.3	2.5	0.0	2.9	-46.3	499.0(2562)	9.8	298.6
2105	-2.3	.8	-2.6	.3	-1.9	1.2	-1.7	1.7	-1.5	2.2	-1.1	2.7	-47.2	500.8(2542)	10.0	298.2
2110	-4.2	-.4	-4.7	-.9	-3.6	.1	-3.1	.5	-2.6	.9	-2.2	1.2	-48.0	503.6(2521)	10.1	297.6
2115	-4.2	0.0	-4.4	0.0	-4.0	0.0	-3.7	0.0	-3.3	0.0	-2.9	0.0	-48.0	505.8(1792)	10.0	297.7
2120	-2.8	0.0	-3.0	0.0	-2.5	0.0	-2.2	0.0	-1.9	0.0	-1.6	0.0	-46.2	507.6(1771)	9.5	297.8
MEAN	-.9	-.4	-.8	-.2	-1.0	-.5	-1.1	-.6	-1.2	-.7	-1.3	-.8	-47.1	503.8	9.9	298.2
DEV	1.3	.8	1.5	.7	1.1	1.0	.9	1.2	.9	1.5	.9	1.8	.5		.2	1.4
RMS	1.7	1.0	1.8	.8	1.6	1.2	1.5	1.4	1.6	1.7	1.6	2.0				
CORR L		.20(SLOPE= .25)											.08	0.00		.03
CORR A													.07	-.01		-.30

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	2	1	1	7	8	2	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	2	7	7	3	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 46 BAFFIN CRUISE,OCT 1963

TRACK-105 KNOTS 120 DEGS WIND- 18 KNOTS 241 DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL
LACOSTE RECORD NORMAL OCT 15
ASKANIA NORMAL SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.04CPS.SURGE= 7.7SECS,.08CPS.SWAY= 5.0SECS,.14CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2245	-1.8	2.6	-1.0	3.2	-2.8	1.9	-3.7	1.3	-4.4	.7	-5.1	.2	52.1	505.8(1792)	11.2	120.3
2250	-2.6	2.8	-2.1	3.2	-3.0	2.3	-3.4	1.8	-3.8	1.3	-4.2	.8	52.4	503.1(2522)	10.9	119.2
2255	-3.6	1.0	-3.5	1.5	-3.7	.4	-4.0	-.1	-4.6	-.6	-5.4	-1.0	50.2	500.3(2551)	10.2	118.4
2300	-5.4	-.4	-4.5	-.1	-6.1	-.6	-6.7	-.8	-7.2	-1.0	-7.5	-1.1	49.3	498.4(2572)	10.0	116.6
2305	-6.0	.6	-5.7	.7	-6.2	.6	-6.3	.6	-6.2	.5	-5.9	.5	49.8	497.1(2601)	10.4	119.1
2310	-4.1	1.7	-4.5	1.9	-3.9	1.6	-3.9	1.5	-3.9	1.4	-4.0	1.4	50.8	496.7(2622)	10.6	118.5
2315	-4.1	1.4	-4.0	1.4	-4.1	1.5	-4.1	1.6	-4.1	1.8	-4.0	2.1	51.3	497.2(2651)	10.3	115.1
2320	-6.2	.2	-6.2	-.1	-6.0	.6	-5.7	1.0	-5.4	1.3	-5.0	1.6	50.1	498.2(2672)	10.1	117.3
2325	-6.0	.5	-6.5	.1	-5.5	.8	-5.0	1.1	-4.6	1.4	-4.1	1.6	49.8	499.4(2692)	10.4	118.7
2330	-3.2	2.3	-3.7	2.0	-2.8	2.6	-2.4	2.9	-2.1	3.3	-1.7	3.7	51.9	501.2(2722)	10.8	117.1
2335	-2.6	3.0	-2.9	2.5	-2.3	3.4	-2.0	3.8	-1.7	4.2	-1.4	4.6	52.0	502.5(2751)	10.5	116.9
2340	-4.2	2.0	-4.5	1.5	-3.9	2.4	-3.6	2.9	-3.2	3.4	-2.8	3.8	50.9	504.4(2781)	10.6	119.4
2345	-3.2	3.5	-3.6	3.0	-2.9	4.0	-2.6	4.5	-2.3	5.0	-2.0	5.4	51.8	506.2(2801)	11.3	121.9
2350	-4.5	2.9	-4.9	2.5	-4.1	3.3	-3.5	3.5	-3.0	3.8	-2.5	4.1	51.8	509.1(3522)	10.8	119.7
2355	-4.2	2.4	-4.5	2.1	-3.8	2.6	-3.4	2.9	-3.0	3.1	-2.6	3.3	50.3	509.5(3551)	10.4	119.4
0	-3.8	2.0	-4.1	1.8	-3.6	2.3	-3.5	2.6	-3.2	2.9	-2.9	3.1	49.1	509.9(3571)	10.4	120.9
5	-3.3	0.0	-3.7	0.0	-3.0	0.0	-2.9	0.0	-2.7	0.0	-2.6	0.0	49.5	511.1(3592)	10.4	118.9
10	-3.1	0.0	-3.3	0.0	-2.9	0.0	-2.8	0.0	-2.7	0.0	-2.6	0.0	50.2	512.5(3621)	10.5	119.6
15	-4.7	0.0	-4.7	0.0	-4.7	0.0	-4.6	0.0	-4.4	0.0	-4.2	0.0	49.7	514.0(3641)	10.4	120.5
MEAN	-4.0	1.7	-4.1	1.7	-3.9	1.8	-3.9	1.9	-3.8	2.0	-3.7	2.1	50.8	502.4	10.5	118.6
DEV	1.1	1.0	1.2	1.0	1.1	1.2	1.2	1.4	1.3	1.6	1.5	1.8	1.0		.3	1.6
RMS	4.2	2.1	4.3	2.0	4.1	2.2	4.1	2.4	4.1	2.6	4.0	2.9				
CORR L		.78(SLOPE= .89)											.60	.01		.21
CORR A													.76	.02		.48

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	3	2	7	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	2	4	5	4	1	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 47 BAFFIN CRUISE,OCT 1963

TRACK-096 KNOTS 300 DEGS WIND- 23 KNOTS 272 DEGS ACC- VERTICAL= 08 KMGL SURGE= 04 KMGL SWAY= 10 KMGL
NO APPARENT REASON FOR LARGE NEGATIVE LACOSTE ERROR. OCT 16
ASKANIA NORMAL SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.0SECS,WIDTH=.06CPS.SURGE=14.3SECS,.04CPS.SWAY= 5.3SECS,.13CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
155	-1.5	-.8	-1.2	-.5	-1.9	-1.2	-2.2	-1.5	-2.6	-1.9	-3.0	-2.2	-47.9	512.5(3621)	10.2	299.1
200	-1.6	-.8	-1.2	-.4	-2.1	-1.2	-2.5	-1.5	-2.9	-1.9	-3.1	-2.2	-47.1	511.4(3601)	9.8	298.0
205	-.9	-.1	-.7	.2	-1.2	-.4	-1.5	-.7	-1.8	-1.0	-2.1	-1.3	-46.0	510.2(3572)	9.6	297.8
210	-.9	-.1	-.6	.2	-1.1	-.3	-1.4	-.5	-1.7	-.8	-2.0	-.9	-45.1	509.5(3552)	9.6	299.7
215	-2.2	-1.1	-2.0	-.9	-2.3	-1.2	-2.2	-1.2	-2.2	-1.2	-2.2	-1.3	-45.4	509.3(3532)	9.7	299.7
220	-2.6	-1.7	-2.5	-1.6	-2.7	-1.8	-2.8	-2.0	-3.0	-2.2	-3.3	-2.5	-46.6	508.4(3511)	9.9	298.1
225	-.7	.1	-.4	.4	-1.0	-.3	-1.4	-.8	-1.8	-1.2	-2.3	-1.7	-47.4	504.7(2782)	9.7	295.3
230	-1.8	-1.1	-1.3	-.7	-2.2	-1.5	-2.6	-1.9	-3.0	-2.3	-3.3	-2.7	-47.7	503.4(2762)	9.9	296.9
235	-1.6	-1.0	-1.1	-.5	-2.1	-1.5	-2.6	-2.0	-3.2	-2.6	-3.7	-3.0	-46.9	502.0(2741)	9.8	298.7
240	-1.0	-.4	-.6	.1	-1.4	-.9	-1.7	-1.2	-2.2	-1.5	-2.5	-1.8	-44.9	500.9(2721)	9.4	299.8
245	-.6	.3	-.3	.4	-.8	.1	-1.0	0.0	-1.2	-.1	-1.4	-.1	-44.2	499.4(2692)	9.4	299.4
250	-1.0	.4	-.8	.5	-1.1	.3	-1.4	.2	-1.6	.1	-1.8	-.1	-44.8	498.2(2672)	9.6	299.2
255	-1.6	.1	-1.5	.2	-1.8	0.0	-2.0	-.1	-2.1	-.1	-2.2	-.2	-45.5	497.2(2651)	9.7	299.2
300	-1.6	.4	-1.6	.4	-1.6	.4	-1.6	.4	-1.6	.4	-1.7	.4	-45.4	496.7(2622)	9.4	296.5
305	-1.3	.9	-1.2	.9	-1.5	.8	-1.6	.7	-1.7	.7	-1.9	.6	-44.6	496.9(2602)	9.4	298.9
310	-2.7	0.0	-2.6	-.1	-2.7	.1	-2.7	.4	-2.6	.8	-2.4	1.4	-44.5	497.8(2582)	9.6	300.7
315	-3.7	.4	-4.0	-.2	-3.3	1.1	-3.0	1.8	-2.6	2.6	-2.3	3.3	-44.6	499.3(2561)	9.5	299.9
320	-5.5	.6	-5.8	-.2	-5.2	1.3	-5.0	1.9	-4.6	2.4	-4.2	2.8	-45.5	501.9(2532)	9.8	300.1
325	-6.5	.4	-7.0	0.0	-6.0	.7	-5.5	1.0	-4.9	1.4	-4.3	1.8	-46.1	504.1(2512)	9.7	298.0
330	-4.9	1.0	-5.5	.6	-4.2	1.5	-3.5	2.0	-2.8	2.5	-2.1	3.1	-45.2	506.1(1791)	9.2	295.9
335	-2.4	0.0	-2.8	0.0	-2.0	0.0	-1.7	0.0	-1.4	0.0	-1.2	0.0	-44.4	507.6(1771)	9.0	294.1
MEAN	-2.2	-.1	-2.1	0.0	-2.2	-.2	-2.3	-.2	-2.4	-.2	-2.5	-.3	-45.7	503.4	9.6	298.5
DEV	1.5	.7	1.8	.5	1.3	.9	1.1	1.2	.9	1.5	.8	1.9	1.1		.2	1.4
RMS	2.7	.7	2.8	.6	2.7	1.0	2.6	1.3	2.6	1.6	2.7	2.0				
CORR L		-.29(SLOPE= -.66)											-.07	0.00		0.00
CORR A													.60	-.02		-.05

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	1	2	1	2	7	8	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	1	5	11	3	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 48 BAFFIN CRUISE,OCT 1963

TRACK-101 KNOTS 120 DEGS WIND- 23 KNOTS 230 DEGS ACC- VERTICAL= 10 KMGL SURGE= 04 KMGL SWAY= 12 KMGL
LACOSTE RECORD NORMAL. OCT 16
ASKANIA NORMAL. SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.9SECS,WIDTH=.06CPS.SURGE= 7.1SECS,.13CPS.SWAY= 6.3SECS,.11CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
500	-6.4	.6	-5.5	1.3	-6.9	-.1	-7.1	-.7	-7.5	-1.3	-8.1	-1.8	51.0	504.5(2511)	10.8	119.7
505	-5.2	1.4	-4.4	1.9	-5.8	.9	-6.2	.4	-6.5	-.1	-6.7	-.4	51.5	501.4(2541)	10.7	118.4
510	-4.1	2.0	-4.0	2.3	-4.3	1.7	-4.5	1.5	-4.6	1.3	-4.6	1.1	51.8	499.0(2562)	10.9	119.4
515	-2.9	2.4	-3.0	2.7	-3.0	2.2	-3.2	2.0	-3.5	1.9	-3.9	1.8	52.0	497.6(2591)	10.7	117.1
520	-4.5	1.4	-4.2	1.5	-4.7	1.3	-4.7	1.4	-4.8	1.4	-4.8	1.6	50.8	496.7(2612)	10.1	115.2
525	-5.8	.6	-6.0	.4	-5.6	.9	-5.5	1.2	-5.5	1.4	-5.3	1.7	49.8	496.9(2641)	10.0	115.6
530	-6.6	.5	-6.8	.2	-6.5	.8	-6.8	1.0	-7.2	1.3	-7.5	1.7	49.2	497.8(2662)	9.8	114.6
535	-7.9	1.9	-7.8	1.4	-7.6	2.3	-7.1	2.8	-6.6	3.3	-6.1	3.8	49.8	498.7(2682)	10.1	115.4
540	-6.3	3.6	-6.9	3.0	-5.4	4.2	-4.6	4.8	-4.0	5.3	-3.5	5.8	51.0	500.6(2712)	10.4	116.4
545	-6.1	3.1	-6.7	2.6	-5.7	3.5	-5.2	4.0	-4.7	4.3	-4.0	4.6	49.2	502.0(2741)	9.9	117.3
550	-6.8	1.5	-7.3	1.3	-6.4	1.7	-5.9	2.0	-5.2	2.3	-4.9	2.7	46.9	503.1(2761)	9.6	118.5
555	-6.9	1.0	-7.1	.5	-6.6	1.5	-6.1	2.1	-5.6	2.8	-5.1	3.5	46.4	504.7(2782)	9.9	121.5
600	-8.2	.7	-8.6	0.0	-7.8	1.3	-7.4	1.9	-6.8	2.4	-5.8	2.8	45.9	507.8(3502)	10.0	123.5
605	-6.8	1.2	-7.7	.9	-6.3	1.4	-6.4	1.6	-6.6	1.7	-6.8	1.7	45.3	509.1(3522)	9.8	123.0
610	-7.1	1.4	-7.0	1.5	-7.1	1.4	-7.0	1.3	-7.0	1.1	-7.1	.9	45.5	509.5(3551)	9.7	121.0
615	-6.7	1.3	-6.6	1.4	-6.7	1.1	-6.6	1.0	-6.6	1.0	-6.6	1.1	46.5	509.9(3571)	9.8	119.2
620	-7.2	.5	-7.3	.4	-7.2	.7	-7.2	.9	-7.1	1.2	-6.9	1.6	47.0	511.1(3592)	10.0	120.6
625	-7.6	0.0	-7.7	0.0	-7.6	0.0	-7.4	0.0	-7.0	0.0	-6.7	0.0	47.2	512.2(3612)	10.1	121.0
630	-8.4	0.0	-8.7	0.0	-8.1	0.0	-7.7	0.0	-7.4	0.0	-7.0	0.0	46.7	513.7(3632)	9.8	119.9
635	-7.4	0.0	-7.8	0.0	-6.8	0.0	-6.2	0.0	-5.8	0.0	-5.8	0.0	48.2	515.9(3661)	10.1	118.3
MEAN	-6.4	1.4	-6.5	1.3	-6.3	1.5	-6.1	1.7	-6.0	1.8	-5.8	2.0	48.8	502.9	10.1	118.6
DEV	1.3	.8	1.5	.8	1.2	1.0	1.1	1.2	1.1	1.4	1.2	1.7	2.3		.3	2.6
RMS	6.6	1.7	6.7	1.6	6.4	1.9	6.2	2.1	6.1	2.4	6.0	2.7				
CORR L		.33(SLOPE= .50)											.73	-.03		-.40
CORR A													.39	-.01		-.30

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	4	8	4	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	11	4	1	1	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS — RUN NO. 49 — BAFFIN CRUISE, OCT 1963

TRACK-098 KNOTS 300 DEGS WIND- KNOTS DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL
OCT 16
LACOSTE RECORD NORMAL.
SERVO ON
ASKANIA NORMAL.
CROSS. COUP. NEGLIGIBLE
ACC INCOMPLETE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
755	.5	1.2	.7	1.4	.5	.9	.3	.7	.1	.4	-.2	.1	-45.6	512.5(3621)	9.6	298.5
800	.6	.9	1.0	1.3	.1	.5	-.5	0.0	-1.1	-.5	-1.6	-.9	-45.5	511.4(3601)	9.5	297.9
805	-.7	0.0	-.3	.4	-1.1	-.4	-1.5	-.8	-1.9	-1.1	-2.2	-1.5	-45.7	509.9(3571)	9.7	298.8
810	-2.0	-1.3	-1.7	-1.0	-2.1	-1.5	-2.1	-1.6	-2.0	-1.7	-1.9	-1.9	-45.6	509.5(3552)	9.9	301.3
815	-1.6	-1.9	-1.8	-1.8	-1.5	-2.0	-1.5	-2.1	-1.6	-2.1	-1.9	-2.2	-45.8	509.3(3531)	9.9	300.8
820	-2.0	-2.2	-1.7	-2.0	-2.2	-2.3	-2.5	-2.5	-2.9	-2.7	-3.3	-2.9	-46.5	508.4(3511)	10.0	299.9
825	-.4	.1	0.0	.4	-.7	-.2	-1.1	-.5	-1.3	-.9	-1.4	-1.2	-46.8	504.7(2782)	10.0	299.4
830	-.4	-.2	-.1	.1	-.7	-.6	-1.0	-.9	-1.3	-1.3	-1.5	-1.6	-46.8	503.4(2762)	9.9	298.8
835	-.6	-.6	-.3	-.4	-1.0	-.8	-1.3	-.9	-1.6	-1.1	-1.7	-1.2	-47.0	502.0(2741)	9.9	298.2
840	-.3	.2	-.2	.3	-.3	.1	-.5	0.0	-.6	-.2	-1.0	-.4	-47.0	500.6(2712)	9.8	297.6
845	-.1	.6	.3	.9	-.4	.3	-.6	0.0	-.8	-.4	-1.3	-.8	-46.9	499.4(2692)	9.8	297.2
850	-.4	.3	.2	.7	-1.0	0.0	-1.5	-.3	-1.9	-.6	-2.1	-.8	-46.8	498.0(2671)	9.8	297.9
855	-1.3	0.0	-1.2	.1	-1.5	-.1	-1.8	-.1	-2.0	-.1	-2.1	0.0	-46.8	497.0(2642)	9.8	298.0
900	-1.7	.3	-1.8	.3	-1.7	.4	-1.5	.4	-1.5	.4	-1.5	.4	-46.8	496.7(2621)	9.8	297.4
905	-2.2	0.0	-2.0	-.1	-2.3	.1	-2.3	.3	-2.1	.6	-1.9	1.0	-46.9	497.1(2601)	9.9	298.3
910	-3.5	-.3	-3.7	-.8	-3.3	.4	-3.0	1.1	-2.7	1.8	-2.4	2.4	-47.4	498.4(2572)	10.0	298.2
915	-4.0	.9	-4.5	.3	-3.4	1.5	-2.7	2.0	-2.2	2.5	-1.7	2.8	-47.7	500.3(2551)	10.0	298.2
920	-3.6	.7	-4.1	.4	-3.3	.9	-3.0	1.2	-2.8	1.5	-2.5	1.8	-47.3	503.1(2522)	10.0	298.9
925	-3.9	0.0	-4.1	0.0	-3.8	0.0	-3.8	0.0	-3.8	0.0	-3.6	0.0	-47.0	505.0(2502)	9.9	298.7
930	-4.7	0.0	-5.0	0.0	-4.2	0.0	-3.6	0.0	-3.0	0.0	-2.3	0.0	-46.4	506.9(1781)	9.8	299.0
MEAN	-1.6	0.0	-1.5	0.0	-1.6	-.1	-1.7	-.2	-1.8	-.3	-1.9	-.3	-46.6	503.4	9.8	298.6
DEV	1.5	.9	1.8	.9	1.3	.9	1.0	1.1	.8	1.3	.7	1.5	.6		.1	1.0
RMS	2.2	.9	2.4	.9	2.1	1.0	2.1	1.1	2.1	1.3	2.0	1.6				
CORR L		.18(SLOPE= .27)											.44	0.00		-.21
CORR A													-.20	0.00		-.72

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	1	3	1	5	3	5	2	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	2	2	9	5	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 50 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 120 DEGS WIND- 22 KNOTS 241 DEGS ACC- VERTICAL= 12 KMGL SURGE= KMGL SWAY= 16 KMGL
LACOSTE RECORD NORMAL. OCT 16
ASKANIA NORMAL SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.02CPS.SURGE= SECS, CPS.SWAY= 4.8SECS,.10CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1100	-8.3	1.2	-7.9	1.7	-8.7	.7	-9.0	.3	-9.2	0.0	-9.4	-.4	48.7	504.1(2512)	10.1	118.7
1105	-7.6	1.2	-7.4	1.6	-7.9	.7	-8.3	.3	-8.9	-.2	-9.5	-.6	48.5	501.9(2532)	10.0	118.2
1110	-7.1	1.8	-6.7	2.2	-7.2	1.4	-7.8	1.0	-8.7	.6	-9.8	.3	48.7	499.3(2561)	10.1	118.0
1115	-9.0	2.1	-7.7	2.4	-10.0	1.9	-10.7	1.7	-11.0	1.5	-11.2	1.4	49.3	497.8(2582)	10.2	118.1
1120	-10.4	2.3	-10.2	2.4	-10.4	2.3	-9.8	2.3	-8.9	2.4	-8.0	2.5	49.4	496.8(2611)	10.2	118.7
1125	-7.5	2.5	-8.2	2.3	-7.5	2.6	-7.9	2.8	-7.9	2.9	-7.5	2.9	49.2	496.8(2632)	10.2	118.8
1130	-7.4	2.5	-8.0	2.4	-6.9	2.7	-6.6	2.8	-6.5	2.9	-6.4	3.1	49.4	497.6(2661)	10.3	118.8
1135	-7.1	2.2	-7.6	1.9	-6.2	2.4	-5.1	2.7	-4.2	3.0	-3.8	3.4	49.4	498.7(2682)	10.3	118.9
1140	-5.4	2.2	-5.3	1.9	-5.6	2.5	-5.8	2.8	-5.8	3.0	-5.7	3.3	49.5	500.3(2711)	10.3	118.9
1145	-6.5	2.6	-6.7	2.3	-6.3	2.8	-6.1	3.0	-6.0	3.3	-5.7	3.5	49.7	501.5(2731)	10.3	118.5
1150	-6.6	2.4	-7.1	2.1	-6.0	2.7	-5.4	3.0	-5.0	3.3	-4.5	3.6	49.7	502.9(2752)	10.3	118.6
1155	-5.3	2.8	-5.6	2.5	-5.0	3.0	-4.8	3.3	-4.7	3.6	-4.5	3.9	50.0	504.4(2781)	10.4	118.4
1200	-7.3	1.1	-7.6	.8	-6.9	1.3	-6.5	1.6	-6.3	1.9	-6.1	2.1	50.3	507.8(3502)	10.4	117.7
1205	-7.0	1.3	-7.2	1.0	-6.7	1.6	-6.3	1.9	-5.7	2.2	-5.2	2.4	50.7	509.3(3531)	10.5	117.9
1210	-4.9	2.6	-5.3	2.3	-4.6	2.9	-4.3	3.1	-4.0	3.4	-3.7	3.7	50.9	509.5(3552)	10.5	118.5
1215	-4.4	3.1	-4.6	2.8	-4.2	3.4	-3.9	3.7	-3.8	4.0	-3.7	4.3	50.7	510.2(3572)	10.6	119.3
1220	-5.3	2.9	-5.3	2.7	-5.5	3.2	-5.6	3.4	-5.6	3.6	-5.6	3.9	50.3	511.4(3601)	10.6	120.2
1225	-7.2	2.4	-7.4	2.1	-6.9	2.7	-6.6	3.0	-6.3	3.2	-6.2	3.4	50.0	513.0(3622)	10.6	120.4
1230	-8.1	0.0	-7.7	0.0	-8.4	0.0	-8.6	0.0	-8.6	0.0	-8.6	0.0	50.6	515.0(3651)	10.6	119.3
MEAN	-6.9	2.1	-7.0	2.0	-6.8	2.2	-6.7	2.3	-6.6	2.4	-6.5	2.5	49.6	503.5	10.3	118.7
DEV	1.4	.5	1.3	.5	1.6	.7	1.8	.9	2.0	1.2	2.2	1.4	.6		.1	.6
RMS	7.1	2.3	7.1	2.1	7.1	2.4	7.0	2.6	7.0	2.8	6.9	3.0				
CORR L		.48(SLOPE= 1.17)											.49	.01		.21
CORR A													.38	0.00		.57

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	1	1	3	8	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	4	7	7	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 51 BAFFIN CRUISE,OCT 1963

TRACK-095 KNOTS 300 DEGS WIND- 25 KNOTS 257 DEGS ACC- VERTICAL= 12 KMGL SURGE= 05 KMGL SWAY= 18 KMGL
LACOSTE RECORD NORMAL.SECOND MAJOR SURGE SPECTRA PEAK AT 6.2 SECS,MINOR AT 3.9 OCT 16
ASKANIA NORMAL. SERVO ON
SPECTRA-VERT CENTER PERIOD= 4.5SECS,WIDTH=.08CPS.SURGE=14.3SECS,.04CPS.SWAY= 4.2SECS,.08CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1400	-.8	1.3	-.5	1.6	-1.0	1.0	-1.3	.7	-1.6	.3	-1.9	-.1	-45.3	513.3(3631)	9.4	296.5
1405	-.6	1.2	-.3	1.5	-.9	.9	-1.4	.6	-2.0	.3	-2.3	0.0	-45.0	511.9(3611)	9.3	297.2
1410	-1.5	.7	-1.3	1.0	-1.7	.4	-1.9	.1	-2.0	-.1	-2.1	-.4	-45.2	510.8(3591)	9.6	298.5
1415	-1.3	.5	-1.0	.7	-1.6	.2	-1.8	-.1	-2.0	-.4	-2.3	-.7	-45.1	509.7(3562)	9.5	299.0
1420	-1.6	0.0	-1.3	.3	-1.9	-.3	-2.2	-.6	-2.5	-.9	-2.5	-1.1	-44.5	509.4(3542)	9.4	299.5
1425	-2.3	-1.2	-2.4	-1.0	-2.2	-1.4	-2.2	-1.5	-2.2	-1.6	-2.3	-1.7	-44.7	509.1(3522)	9.5	299.0
1430	-.1	.5	0.0	.6	-.3	.3	-.3	.1	-.5	-.1	-.8	-.5	-45.2	506.2(3501)	9.6	298.8
1435	.7	1.0	1.0	1.3	.5	.6	.2	.2	-.2	-.3	-.7	-.8	-45.3	504.4(2781)	9.5	298.4
1440	.6	.7	1.2	1.1	-.1	.4	-.8	.1	-1.5	-.2	-2.1	-.5	-44.8	502.9(2752)	9.3	297.5
1445	-1.6	.3	-1.0	.6	-2.1	0.0	-2.6	-.2	-2.9	-.4	-3.2	-.6	-44.8	501.8(2732)	9.4	297.5
1450	-2.2	.4	-1.9	.7	-2.6	.2	-2.9	-.1	-3.2	-.3	-3.4	-.5	-45.1	500.3(2711)	9.5	298.2
1455	-2.6	.3	-2.4	.5	-2.8	.1	-3.0	-.1	-3.1	-.3	-3.0	-.5	-45.2	499.1(2691)	9.5	298.5
1500	-1.6	.4	-1.9	.6	-1.2	.3	-.8	.2	-.7	.1	-.8	-.1	-45.4	497.8(2662)	9.6	298.4
1505	0.0	.6	0.0	.7	-.1	.5	-.5	.4	-1.0	.4	-1.6	.4	-45.5	497.0(2642)	9.6	298.6
1510	-1.8	.8	-1.2	.8	-2.4	.8	-3.2	.9	-3.8	1.0	-4.0	1.2	-45.3	496.7(2621)	9.6	298.9
1515	-4.5	1.0	-4.5	.7	-4.2	1.3	-3.7	1.6	-3.0	2.0	-2.3	2.5	-45.4	497.1(2601)	9.6	298.9
1520	-3.3	1.5	-3.7	1.1	-3.1	2.0	-2.9	2.5	-2.4	3.1	-1.9	3.7	-45.6	498.4(2572)	9.7	298.9
1525	-3.5	2.3	-3.9	1.7	-3.4	2.9	-3.3	3.4	-3.2	4.0	-3.0	4.5	-45.7	500.3(2551)	9.7	298.8
1530	-5.1	2.4	-5.6	1.9	-4.2	3.0	-3.1	3.5	-2.2	4.0	-1.8	4.4	-46.0	502.6(2531)	9.7	298.8
1535	-4.3	0.0	-4.5	0.0	-4.1	0.0	-3.7	0.0	-3.3	0.0	-2.8	0.0	-46.3	505.0(2502)	9.8	299.1
1540	-4.4	0.0	-4.9	0.0	-3.9	0.0	-3.5	0.0	-3.0	0.0	-2.5	0.0	-46.5	506.9(1781)	9.9	298.9
MEAN	-1.9	.7	-1.9	.8	-2.0	.6	-2.1	.6	-2.2	.5	-2.2	.4	-45.2	503.6	9.5	298.4
DEV	1.6	.7	1.9	.6	1.4	1.0	1.1	1.2	.9	1.5	.8	1.8	.3		.1	.7
RMS	2.6	1.1	2.7	1.1	2.5	1.2	2.4	1.4	2.4	1.6	2.4	1.9				
CORR L		-.34(SLOPE= -.69)											.62	.01		-.46
CORR A													-.78	0.00		-.15

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	1	3	3	6	4	2	2	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	1	5	10	3	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 52 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 120 DEGS WIND- 26 KNOTS 240 DEGS ACC- VERTICAL= 08 KMGL SURGE= 05 KMGL SWAY= 13 KMGL
LACOSTE RECORD NORMAL. OCT 16
ASKANIA NORMAL. PLATFORM OSC AT START OF RUN WITH PERIOD OF 9 MINS. SERVO ON
SPECTRA-VERT CENTER PERIOD= 4.5SECS,WIDTH=.09CPS.SURGE= 4.2SECS,.07CPS.SWAY= 4.2SECS,.07CPS. CROSS COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1750	-10.1	2.4	-10.2	2.0	-9.7	2.5	-9.1	2.5	-8.7	2.5	-8.4	2.6	-1.2	504.4(2331)	10.2	181.6
1755	-8.5	2.0	-9.1	1.9	-7.7	2.2	-6.9	2.5	-6.3	2.7	-6.1	3.0	-1.7	504.5(2341)	10.2	182.5
1800	-8.1	1.6	-7.8	1.3	-8.2	1.9	-8.0	2.1	-7.6	2.2	-7.3	2.2	-3.0	504.9(2352)	10.1	184.1
1805	-8.5	1.1	-8.5	1.0	-8.6	1.3	-8.7	1.5	-8.7	1.6	-8.3	1.8	-3.9	505.3(2362)	10.0	184.7
1810	-9.7	-.2	-10.4	-.3	-9.2	-.1	-9.1	.2	-9.4	.5	-9.7	.9	-3.9	507.3(2381)	10.1	184.4
1815	-10.3	.9	-10.1	.5	-10.5	1.2	-10.8	1.5	-11.2	1.7	-11.8	1.9	-3.5	508.2(2391)	10.0	183.9
1820	-12.6	1.6	-12.2	1.5	-12.8	1.6	-12.9	1.6	-12.7	1.5	-12.4	1.3	-3.3	508.7(2401)	10.1	183.9
1825	-11.6	1.5	-11.9	1.8	-11.6	1.1	-12.0	.7	-12.5	.3	-13.4	-.1	-2.8	508.7(2412)	10.2	183.1
1830	-12.9	.9	-11.9	1.4	-13.6	.5	-13.9	.1	-14.2	-.3	-14.7	-.6	-1.6	508.4(2422)	9.9	181.7
1835	-14.8	-.4	-14.3	-.2	-14.9	-.5	-14.5	-.6	-13.9	-.6	-13.2	-.5	-1.0	508.7(2432)	10.0	181.4
1840	-13.2	-1.0	-13.7	-1.0	-13.0	-.8	-13.4	-.5	-13.9	-.1	-14.1	.4	-.9	509.3(2451)	10.1	181.3
1845	-15.2	-.2	-15.2	-.7	-15.1	.5	-15.3	1.2	-15.3	2.0	-14.8	2.7	-1.7	509.5(2461)	10.1	182.7
1850	-15.9	1.6	-16.6	.9	-15.3	2.2	-15.0	2.7	-14.8	3.1	-14.5	3.3	-3.3	509.8(2471)	10.3	184.4
1855	-15.3	2.3	-15.6	2.2	-15.2	2.3	-15.1	2.2	-15.0	2.1	-15.4	2.1	-4.0	510.1(3302)	10.3	184.6
1900	-16.6	1.7	-15.8	1.7	-17.0	1.7	-16.8	1.7	-16.6	1.8	-16.6	1.8	-4.4	510.2(3312)	10.3	185.1
1905	-16.9	1.4	-16.9	1.5	-16.7	1.4	-16.4	1.3	-16.2	1.2	-15.8	1.0	-4.7	510.2(3322)	10.4	185.3
1910	-14.7	1.3	-15.3	1.5	-14.4	1.2	-14.2	.9	-13.9	.7	-13.9	.6	-4.6	509.7(3332)	10.3	185.1
1915	-13.5	1.2	-13.2	1.3	-13.8	1.1	-14.0	1.0	-14.2	.9	-14.7	.8	-4.5	509.1(3351)	10.3	185.0
1920	-15.2	.7	-14.6	.9	-15.7	.7	-15.8	.6	-15.9	.5	-15.7	.4	-4.4	509.2(3361)	10.3	184.8
1925	-15.2	.6	-15.5	.6	-15.6	.5	-16.6	.5	-17.3	.5	-17.2	.5	-4.0	509.3(3371)	10.4	184.4
1930	-16.7	.6	-17.2	.5	-16.4	.6	-16.5	.7	-16.8	.8	-17.2	.9	-4.0	509.4(3381)	10.4	184.5
1935	-18.2	.4	-17.9	.2	-17.7	.5	-16.4	.7	-15.2	.8	-14.9	.9	-4.7	509.3(3392)	10.2	185.7
1940	-16.2	.6	-15.4	.4	-17.1	.7	-17.4	.7	-17.2	.6	-17.0	.3	-5.3	509.2(3402)	10.2	186.0
1945	-15.3	1.4	-15.4	1.9	-15.2	.9	-15.5	.2	-16.0	-.6	-16.0	-1.3	-2.9	510.1(3412)	10.5	182.1
1950	-11.7	1.6	-12.3	2.4	-11.3	.7	-12.0	0.0	-13.0	-.5	-13.5	-.8	1.1	510.4(3422)	10.8	178.0
1955	-13.0	-.2	-12.8	-.1	-13.2	-.1	-13.6	.3	-13.9	.8	-14.1	1.3	1.4	510.1(3432)	10.6	179.5
2000	-16.3	-.5	-16.6	-1.2	-15.3	.1	-13.9	.7	-12.6	1.3	-11.8	1.8	-1.4	509.6(3442)	10.0	183.1
2005	-12.7	.9	-13.3	.3	-12.0	1.4	-11.1	1.8	-10.2	2.1	-9.4	2.3	-3.8	508.7(3452)	10.3	185.0
2010	-8.7	2.8	-9.1	2.6	-8.6	3.0	-8.7	3.3	-8.7	3.5	-8.7	3.7	-4.4	507.8(3462)	10.4	184.9
2015	-9.2	3.3	-9.2	3.2	-9.0	3.4	-8.9	3.5	-9.0	3.6	-9.6	3.7	-5.1	507.6(3472)	9.8	186.3
2020	-11.6	2.4	-11.0	2.3	-12.1	2.6	-12.3	2.6	-12.4	2.7	-12.5	2.7	-6.5	507.7(4302)	10.2	187.7
2025	-13.5	2.1	-13.2	2.0	-13.9	2.2	-14.2	2.2	-14.3	2.2	-13.9	2.3	-6.8	508.1(4312)	10.7	187.1
2030	-14.9	.8	-15.6	.6	-14.4	1.0	-13.9	1.1	-13.9	1.2	-13.9	1.2	-7.5	509.0(4322)	10.6	188.4
MEAN	-13.2	1.1	-13.2	1.0	-13.1	1.1	-13.1	1.2	-13.0	1.3	-13.0	1.3	-3.4	508.5	10.2	184.0
DEV	2.8	.9	2.7	1.0	2.8	.9	2.8	1.0	2.9	1.1	2.9	1.2	1.9		.2	2.1
RMS	13.5	1.5	13.6	1.5	13.5	1.5	13.4	1.6	13.4	1.7	13.4	1.9				
CORR L		.39(SLOPE= 1.13)											.15	-.01		-.14
CORR A													-.36	0.00		.31

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	25	3	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	1	6	13	11	2	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 53 BAFFIN CRUISE,OCT 1963

TRACK-100 KNOTS 004 DEGS WIND- 20 KNOTS 260 DEGS ACC- VERTICAL= 09 KMGL SURGE= 05 KMGL SWAY= 13 KMGL
LACOSTE RECORD NORMAL. OCT 16
ASKANIA NORMAL EXCEPT MINICOM RECORD BROKEN 0027 TO 0050. SERVO ON
SPECTRA-VERT CENTER PERIOD= 4.5SECS,WIDTH=.04CPS.SURGE= 7.1SECS,.12CPS.SWAY= 5.6SECS,.08CPS. CROSS COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2150	-4.5	-1.9	-4.0	-1.3	-5.0	-2.4	-5.5	-2.9	-5.9	-3.5	-6.3	-4.0	3.3	507.8(4311)	10.2	3.3
2155	-4.4	-2.4	-4.1	-1.8	-4.6	-2.9	-4.9	-3.2	-5.2	-3.4	-5.5	-3.6	5.4	507.7(4302)	9.8	6.3
2200	-4.6	-2.7	-4.5	-2.6	-4.7	-2.8	-4.8	-2.8	-4.8	-2.7	-4.7	-2.5	6.3	507.6(3472)	9.9	6.3
2205	-4.8	-2.5	-4.8	-2.6	-4.7	-2.2	-4.7	-1.8	-4.6	-1.3	-4.4	-.8	6.3	507.8(3462)	10.0	6.2
2210	-4.7	-.7	-4.9	-1.3	-4.3	0.0	-4.0	.6	-3.7	1.1	-3.5	1.7	6.7	508.7(3452)	9.9	7.0
2215	-4.9	.6	-5.1	.1	-4.7	1.0	-4.3	1.3	-4.0	1.5	-3.7	1.7	6.1	509.6(3442)	10.3	5.3
2220	-4.9	.6	-5.0	.4	-4.8	.8	-4.8	1.0	-4.7	1.3	-4.6	1.8	5.3	510.1(3432)	10.0	4.9
2225	-5.9	.7	-6.1	.3	-5.7	1.1	-5.6	1.6	-5.6	2.0	-5.4	2.3	4.1	510.4(3422)	9.7	3.5
2230	-6.6	1.3	-6.7	1.0	-6.6	1.4	-6.5	1.4	-6.3	1.2	-6.1	.8	2.4	510.1(3412)	9.9	1.5
2235	-5.0	1.2	-5.2	1.7	-4.9	.7	-4.9	.1	-5.0	-.6	-5.2	-1.3	2.4	509.2(3402)	10.0	2.4
2240	-4.0	-.5	-3.7	.2	-4.3	-1.2	-4.7	-1.8	-5.1	-2.4	-5.6	-2.7	4.1	509.3(3392)	9.8	4.7
2245	-4.3	-1.3	-3.9	-1.0	-4.7	-1.4	-5.0	-1.4	-5.1	-1.4	-5.0	-1.1	5.8	509.4(3382)	9.7	6.4
2250	-4.1	.1	-4.3	-.4	-3.7	.6	-3.3	1.1	-3.1	1.7	-3.0	2.3	6.5	509.3(3372)	10.0	6.4
2255	-3.6	2.1	-3.8	1.5	-3.3	2.7	-2.9	3.3	-2.6	3.9	-2.3	4.4	5.5	509.2(3361)	9.8	5.0
2300	-3.5	3.3	-3.7	3.0	-3.3	3.5	-3.1	3.7	-2.8	3.9	-2.4	4.1	4.0	509.1(3351)	9.6	3.5
2305	-3.3	3.1	-3.5	3.0	-3.2	3.1	-3.3	3.0	-3.4	2.9	-3.5	2.8	3.0	509.2(3341)	9.7	2.6
2310	-4.4	1.8	-4.3	2.0	-4.5	1.8	-4.6	1.6	-4.8	1.5	-4.9	1.4	3.2	510.1(3331)	9.9	3.2
2315	-5.7	.5	-5.6	.7	-5.7	.2	-5.7	-.1	-5.7	-.6	-5.9	-1.0	2.6	510.3(3321)	10.3	1.9
2320	-6.4	-2.0	-6.3	-1.4	-6.7	-2.7	-7.1	-3.5	-7.6	-4.3	-8.0	-5.1	2.1	510.2(3311)	10.4	1.6
2325	-5.7	-3.1	-5.2	-2.3	-6.1	-3.7	-6.5	-4.2	-7.0	-4.6	-7.4	-4.9	4.6	509.9(2472)	10.6	5.4
2330	-4.9	-2.1	-4.6	-2.1	-5.0	-1.9	-4.8	-1.3	-4.4	-.6	-3.9	.2	7.2	509.6(2462)	10.3	7.6
2335	-3.8	.6	-4.3	-.2	-3.4	1.4	-2.9	2.1	-2.4	2.8	-2.0	3.5	6.5	509.4(2452)	10.0	5.8
2340	-3.5	2.1	-3.8	1.7	-3.4	2.3	-3.4	2.2	-3.6	2.0	-3.8	1.6	4.3	508.9(2441)	10.7	2.9
2345	-4.1	1.0	-4.0	1.4	-4.2	.6	-4.3	.2	-4.4	-.1	-4.4	-.4	3.8	508.6(2431)	11.2	3.2
2350	-3.7	-.1	-3.8	.2	-3.6	-.2	-3.5	-.3	-3.3	-.2	-3.2	-.1	4.5	508.7(2412)	10.6	4.3
2355	-3.3	-.2	-3.5	-.4	-3.2	-.1	-3.3	-.1	-3.5	-.2	-3.7	-.4	4.2	508.8(2402)	10.2	3.6
0	-2.3	.9	-2.1	1.2	-2.6	.5	-2.8	.1	-3.0	-.2	-3.1	-.4	5.3	508.2(2391)	10.2	5.7
5	-1.5	1.2	-1.4	1.3	-1.4	1.3	-1.3	1.5	-1.1	1.9	-.9	2.3	6.0	507.3(2381)	10.2	5.8
10	-1.0	2.6	-1.3	1.9	-.7	3.3	-.3	4.0	0.0	4.6	.2	5.0	3.6	505.3(2362)	9.9	2.1
15	-2.0	3.1	-2.1	2.7	-2.0	3.2	-2.0	3.2	-2.1	3.0	-2.3	2.7	1.0	504.9(2352)	9.9	0.0
20	-3.3	1.5	-3.1	1.9	-3.6	.9	-3.9	.3	-4.2	-.5	-4.5	-1.3	0.0	504.6(2342)	10.3	-.7
25	-3.0	-.3	-2.7	.5	-3.3	-1.0	-3.5	-1.7	-3.7	-2.1	-3.7	-2.5	1.5	504.4(2331)	10.3	2.0
30	-1.5	-.4	-1.4	-.2	-1.5	-.5	-1.5	-.5	-1.4	-.3	-1.3	-.1	3.5	504.2(2321)	10.5	3.7
MEAN	-4.0	.2	-4.0	.2	-4.0	.2	-4.0	.2	-4.0	.1	-4.0	.1	4.2	508.4	10.1	4.0
DEV	1.3	1.7	1.3	1.5	1.3	1.9	1.4	2.1	1.6	2.3	1.7	2.5	1.7		.3	2.0
RMS	4.3	1.8	4.2	1.6	4.3	2.0	4.3	2.2	4.4	2.4	4.4	2.6				
CORR L		.43(SLOPE= .33)											-.07	-.01		-.10
CORR A													-.38	0.00		-.52

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	1	4	7	10	6	2	3	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	2	5	2	6	10	4	4	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 54 BAFFIN CRUISE, OCT 1963

TRACK-133 KNOTS 184 DEGS WIND- 21 KNOTS 259 DEGS ACC- VERTICAL= 08 KMGL SURGE= 03 KMGL SWAY= 05 KMGL
LACOSTE RECORD NORMAL. OCT 17
ASKANIA NORMAL. SERVO OFF
ACC INCOMPLETE CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
140	-6.0	0.0	-5.8	0.0	-6.0	0.0	-5.9	0.0	-5.7	0.0	-5.5	0.0	-2.8	504.4(2332)	13.3	182.8
145	-6.4	0.0	-6.7	0.0	-6.3	0.0	-6.2	0.0	-6.0	0.0	-5.7	0.0	-3.6	504.7(2351)	13.1	183.8
150	-5.8	0.0	-5.9	0.0	-5.6	0.0	-5.5	0.0	-5.5	0.0	-5.6	0.0	-3.3	505.3(2362)	13.1	182.9
155	-6.8	0.0	-6.8	0.0	-6.5	.2	-6.2	.5	-5.7	.8	-5.3	1.0	-2.5	507.3(2381)	13.1	182.3
200	-6.1	.1	-6.5	-.2	-5.8	.4	-5.6	.7	-5.4	.9	-5.3	1.1	-2.5	508.5(2392)	13.2	182.6
205	-5.6	1.0	-5.6	.8	-5.6	1.2	-5.4	1.4	-5.0	1.5	-4.8	1.6	-2.5	508.7(2412)	13.3	182.5
210	-4.5	1.9	-4.6	1.8	-4.7	2.0	-4.8	2.2	-4.6	2.5	-4.1	2.8	-2.4	508.6(2431)	13.2	182.5
215	-5.3	1.3	-5.8	1.1	-4.8	1.6	-4.4	1.9	-4.1	2.2	-3.8	2.6	-3.7	509.1(2442)	13.0	184.0
220	-4.9	1.4	-5.3	1.1	-4.5	1.7	-4.2	1.9	-4.2	2.0	-4.5	2.1	-4.7	509.5(2461)	13.2	184.5
225	-4.7	2.3	-4.3	2.3	-5.0	2.3	-5.4	2.3	-6.0	2.1	-6.7	2.0	-4.2	509.9(2472)	13.4	183.5
230	-8.1	1.2	-7.4	1.3	-8.5	1.1	-8.6	1.0	-8.5	1.0	-8.3	.9	-4.5	510.2(3311)	13.3	184.4
235	-9.0	0.0	-9.2	0.0	-9.1	0.0	-9.4	-.1	-9.6	-.1	-9.5	-.2	-5.5	510.2(3322)	13.2	185.2
240	-7.9	1.4	-7.9	1.4	-8.0	1.3	-8.3	1.2	-8.6	1.1	-8.7	.9	-4.8	509.2(3341)	13.4	184.0
245	-7.5	2.0	-7.5	2.1	-7.3	1.9	-7.0	1.8	-6.6	1.7	-6.4	1.7	-3.7	509.1(3351)	13.4	183.2
250	-5.8	2.2	-5.9	2.2	-5.5	2.3	-5.0	2.5	-4.4	2.7	-3.8	3.0	-3.2	509.2(3362)	13.6	182.9
255	-4.6	1.9	-5.3	1.5	-4.0	2.3	-3.4	2.8	-2.7	3.3	-2.1	3.6	-4.5	509.4(3381)	13.9	184.5
300	-3.0	2.4	-3.6	2.1	-2.7	2.6	-2.6	2.8	-2.7	2.8	-2.9	2.9	-6.1	509.3(3392)	13.7	185.6
305	-4.0	1.9	-3.8	2.0	-4.4	1.8	-4.8	1.7	-5.2	1.5	-5.8	1.2	-6.9	509.4(3411)	13.5	186.1
310	-7.0	.2	-6.5	.5	-7.6	-.1	-8.3	-.6	-9.0	-1.0	-10.0	-1.4	-6.5	510.4(3422)	13.0	185.6
315	-7.9	1.1	-7.1	1.5	-8.4	.6	-8.9	.2	-9.4	-.1	-9.9	-.3	-3.9	510.1(3432)	13.6	182.7
320	-8.3	1.4	-8.2	1.4	-8.2	1.4	-7.9	1.5	-7.4	1.7	-6.8	1.8	-3.2	509.2(3451)	14.0	183.1
325	-5.9	2.2	-6.6	2.0	-5.5	2.4	-5.1	2.6	-4.6	2.8	-3.9	2.9	-4.3	507.8(3462)	13.4	184.3
330	-3.9	2.5	-4.4	2.4	-3.8	2.6	-3.8	2.7	-3.9	2.8	-4.0	2.8	-5.0	507.6(3472)	13.7	184.5
335	-4.7	0.0	-4.6	0.0	-4.7	0.0	-4.7	0.0	-4.6	0.0	-4.6	0.0	-5.4	507.8(4311)	14.2	184.8
MEAN	-5.9	1.4	-6.0	1.3	-5.9	1.4	-5.8	1.5	-5.8	1.6	-5.7	1.6	-4.2	509.1	13.4	183.9
DEV	1.5	.7	1.4	.7	1.6	.8	1.8	.9	1.9	1.1	2.1	1.2	1.3		.2	1.1
RMS	6.2	1.6	6.2	1.6	6.2	1.7	6.2	1.8	6.1	2.0	6.1	2.1				
CORR L		.59(SLOPE= 1.23)											-.18	0.00		.24
CORR A													-.15	0.00		.14

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	1	4	3	7	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	4	7	8	1	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 55 BAFFIN CRUISE,OCT 1963

TRACK-134 KNOTS 004 DEGS WIND- 20 KNOTS 324 DEGS ACC- VERTICAL= 05 KMGL SURGE= 03 KMGL SWAY= 04 KMGL
LACOSTE RECORD NORMAL. OCT 17
ASKANIA NORMAL. SERVO OFF
ACC INCOMPLETE CROSS COUPC NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE		SPD	COURSE
440	-1.0	2.1	-.8	2.0	-1.1	2.2	-1.1	2.4	-1.2	2.5	-1.2	2.6	6.2	507.8(	0)	0.0	0.0
445	-1.7	2.2	-1.8	2.0	-1.6	2.3	-1.5	2.4	-1.4	2.5	-1.3	2.6	5.6	507.8(	1)	0.0	0.0
450	-2.0	1.9	-2.0	1.9	-2.0	1.8	-2.1	1.8	-2.1	1.8	-2.2	1.8	5.0	507.9(	1)	0.0	0.0
455	-2.8	1.3	-2.6	1.4	-2.9	1.3	-2.9	1.3	-2.9	1.4	-2.7	1.5	5.5	508.8(	1)	0.0	0.0
500	-2.8	1.3	-3.1	1.1	-2.5	1.5	-2.1	1.6	-1.7	1.8	-1.4	1.9	6.0	509.7(	1)	0.0	0.0
505	-2.3	.9	-2.5	.8	-2.2	.9	-2.3	.9	-2.4	.9	-2.7	.7	5.1	510.0(	1)	0.0	0.0
510	-4.2	-.6	-3.9	-.5	-4.6	-.8	-5.0	-1.1	-5.3	-1.3	-5.6	-1.6	4.3	510.3(	1)	0.0	0.0
515	-4.3	-.4	-4.0	0.0	-4.6	-.7	-4.9	-1.0	-5.2	-1.4	-5.4	-1.7	5.5	509.9(	1)	0.0	0.0
520	-4.0	-.5	-3.8	-.1	-4.2	-.8	-4.4	-1.1	-4.6	-1.4	-4.8	-1.7	6.8	509.6(	1)	0.0	0.0
525	-3.9	-.9	-3.8	-.7	-3.9	-1.0	-3.9	-1.2	-3.9	-1.2	-3.8	-1.1	7.5	509.4(	1)	0.0	0.0
530	-2.7	0.0	-2.9	-.2	-2.3	.2	-1.9	.5	-1.5	.9	-1.2	1.3	8.3	509.2(	1)	0.0	0.0
535	-2.6	-.2	-3.0	-.5	-2.3	.2	-1.9	.6	-1.6	1.1	-1.3	1.4	6.9	509.6(	1)	0.0	0.0
540	-2.8	0.0	-3.1	-.4	-2.6	.3	-2.3	.7	-2.0	1.0	-1.7	1.3	5.5	510.0(	1)	0.0	0.0
545	-3.3	-.2	-3.6	-.6	-3.1	.1	-2.8	.4	-2.6	.6	-2.4	.8	3.7	510.1(	1)	0.0	0.0
550	-4.2	-1.0	-4.3	-1.1	-4.1	-1.0	-4.2	-1.0	-4.3	-1.0	-4.4	-1.1	1.9	510.2(	1)	0.0	0.0
555	-3.2	.2	-2.9	.4	-3.5	-.1	-3.8	-.4	-4.3	-.8	-4.8	-1.2	2.8	509.6(	1)	0.0	0.0
600	-3.8	-.1	-3.3	.3	-4.4	-.6	-5.0	-1.1	-5.6	-1.6	-6.1	-2.0	3.8	509.1(	1)	0.0	0.0
605	-5.7	0.0	-5.4	0.0	-6.0	0.0	-6.2	0.0	-6.2	0.0	-6.3	0.0	4.3	508.9(	0)	0.0	0.0
MEAN	-3.1	.3	-3.1	.3	-3.2	.3	-3.2	.3	-3.2	.3	-3.2	.3	5.2	509.3		0.0	0.0
DEV	1.0	1.0	1.0	.9	1.2	1.0	1.4	1.2	1.6	1.4	1.7	1.5	1.5			0.0	0.0
RMS	3.4	1.1	3.3	1.0	3.4	1.1	3.5	1.3	3.6	1.5	3.8	1.6					
CORR L		.87(SLOPE= .79)											.31	0.00			0.00
CORR A													.13	0.00			0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	1	0	6	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	3	8	3	3	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 59 BAFFIN CRUISE, OCT 1963

TRACK-098 KNOTS 180 DEGS WIND- 13 KNOTS 052 DEGS ACC- VERTICAL= 08 KMGL SURGE= KMGL SWAY= KMGL
OCT 17
LACOSTE NORMAL.
ASKANIA NORMAL. SERVO ON
ACCELERATION DATA INCOMPLETE. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1850	-.8	2.8	-1.1	2.4	-.5	3.3	-.1	3.8	.3	4.2	.7	4.6	-3.9	504.5(2341)	10.1	185.0
1855	.1	3.9	-.2	3.7	.4	4.1	.6	4.3	.7	4.3	.8	4.2	-4.5	504.7(2351)	10.3	185.1
1900	.6	3.7	.6	4.0	.6	3.3	.6	2.8	.5	2.3	.3	1.7	-4.1	505.3(2362)	10.1	184.5
1905	0.0	.9	.1	1.5	-.2	.4	-.4	-.1	-.6	-.4	-.7	-.6	-3.1	506.5(2372)	9.8	183.4
1910	-1.8	-1.6	-1.7	-1.6	-1.9	-1.5	-2.0	-1.4	-2.0	-1.2	-2.0	-.9	-2.5	508.2(2391)	9.9	182.9
1915	-2.0	-.6	-2.0	-.9	-2.0	-.2	-1.9	.1	-1.8	.3	-1.7	.5	-1.9	508.7(2401)	9.9	182.3
1920	-1.1	1.1	-1.2	1.0	-1.0	1.1	-.9	1.1	-.8	1.1	-.9	.9	-1.4	508.8(2411)	9.8	181.7
1925	.1	1.7	.1	1.9	0.0	1.5	-.1	1.3	-.1	1.2	0.0	1.3	-.8	508.4(2421)	10.0	181.0
1930	-.7	.7	-.8	.5	-.5	1.0	-.2	1.5	0.0	2.0	.3	2.5	-1.3	508.7(2432)	9.8	182.1
1935	-1.1	1.6	-1.3	.9	-.7	2.2	-.4	2.8	-.2	3.3	0.0	3.7	-2.4	509.1(2442)	9.7	183.5
1940	-.5	3.4	-.6	3.1	-.4	3.5	-.4	3.6	-.4	3.7	-.3	3.9	-2.7	509.4(2452)	9.6	183.3
1945	-.8	3.2	-1.1	3.1	-.5	3.4	-.1	3.5	.2	3.8	.5	3.9	-3.3	509.6(2462)	9.7	184.4
1950	-.5	2.9	-.7	2.7	-.2	3.0	.1	3.1	.4	3.1	.6	3.1	-4.1	510.0(2481)	10.0	185.0
1955	.1	2.5	.1	2.6	0.0	2.5	0.0	2.5	-.1	2.4	-.1	2.4	-4.5	510.2(3311)	10.1	185.2
2000	-.4	2.0	-.3	2.2	-.6	1.7	-.8	1.4	-1.0	1.0	-1.3	.6	-4.5	510.3(3321)	10.0	185.2
2005	-1.1	.7	-.8	1.1	-1.4	.2	-1.7	-.3	-1.8	-.8	-2.0	-1.2	-4.2	510.1(3331)	9.8	184.8
2010	-.2	.3	-.1	.7	-.3	0.0	-.5	-.2	-.7	-.2	-.8	-.3	-3.5	509.0(3342)	9.8	183.8
2015	-.9	-.2	-.8	-.3	-1.0	-.2	-1.0	-.1	-1.1	0.0	-1.2	.1	-3.3	509.2(3352)	9.7	184.0
2020	-1.9	-.3	-1.8	-.5	-2.0	-.1	-2.0	0.0	-2.0	0.0	-2.0	0.0	-3.9	509.2(3362)	9.4	185.1
2025	-1.8	0.0	-1.8	.2	-1.9	-.2	-2.0	-.4	-2.1	-.7	-2.2	-.9	-3.6	509.3(3372)	9.2	184.2
2030	-1.5	-.3	-1.4	-.1	-1.5	-.6	-1.6	-.7	-1.5	-.8	-1.5	-.8	-2.7	509.4(3382)	9.1	183.1
2035	-1.1	-.2	-1.1	-.4	-1.0	.1	-.9	.4	-.7	.8	-.5	1.2	-2.2	509.4(3391)	9.5	182.8
2040	-.8	1.2	-1.0	.7	-.6	1.7	-.4	2.2	-.2	2.6	0.0	3.0	-3.0	509.2(3402)	10.1	183.9
2045	-2.0	1.1	-2.2	.8	-1.7	1.5	-1.6	1.8	-1.5	2.0	-1.5	2.1	-4.2	510.1(3412)	10.0	185.3
2050	-1.8	1.9	-1.8	1.8	-1.7	1.9	-1.6	1.9	-1.6	1.9	-1.6	1.8	-4.3	510.4(3422)	9.8	184.9
2055	-1.2	2.1	-1.1	2.3	-1.3	1.8	-1.4	1.5	-1.6	1.1	-1.7	.8	-4.0	510.1(3432)	9.6	184.8
2100	-1.1	1.2	-.9	1.6	-1.4	.7	-1.6	.3	-1.8	0.0	-1.8	-.2	-3.4	509.9(3441)	9.6	183.8
2105	-1.2	.2	-1.2	.4	-1.1	.1	-1.1	0.0	-1.0	-.1	-1.0	-.3	-3.5	509.2(3451)	9.6	184.5
2110	-.8	-.1	-.7	0.0	-.9	-.2	-1.1	-.3	-1.4	-.5	-1.8	-.8	-4.3	508.1(3461)	9.9	185.4
2115	-1.6	-.5	-1.3	-.3	-1.8	-.7	-2.0	-.9	-2.1	-1.0	-2.1	-1.0	-4.2	507.7(3471)	10.5	184.4
2120	-2.0	-.8	-2.1	-1.0	-1.8	-.7	-1.5	-.4	-1.2	-.1	-.9	.3	-4.4	507.6(4301)	10.6	185.0
2125	-1.3	0.0	-1.5	-.3	-1.1	.3	-1.0	.7	-.8	1.0	-.7	1.3	-4.8	507.8(4311)	10.3	185.4
2130	-.8	1.4	-.9	1.1	-.7	1.7	-.5	2.0	-.3	2.3	-.1	2.7	-4.3	508.5(4321)	10.2	184.5
MEAN	-.9	1.0	-.9	1.0	-.9	1.1	-.8	1.1	-.8	1.1	-.8	1.2	-3.4	508.6	9.8	184.0
DEV	.6	1.4	.6	1.4	.7	1.4	.7	1.5	.8	1.6	.9	1.7	1.0		.3	1.1
RMS	1.2	1.8	1.2	1.8	1.2	1.8	1.2	1.9	1.2	2.0	1.2	2.1				
CORR L		.65(SLOPE= .32)											.01	0.00		-.06
CORR A													-.18	0.00		.20

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	8	16	8	1	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	1	2	10	8	5	5	2	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 60 BAFFIN CRUISE, OCT 1963

TRACK-100 KNOTS 004 DEGS WIND- 13 KNOTS 041 DEGS ACC- VERTICAL= 10 KMGL SURGE= KMGL SWAY= KMGL

LACOSTE NORMAL.
ASKANIA NORMAL.
ACCELERATION DATA INCOMPLETE.

OCT 17
SERVO OFF
CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2250	0.0	.6	0.0	.8	0.0	.5	0.0	.3	0.0	.2	0.0	0.0	3.7	508.1(4312)	9.7	3.7
2255	0.0	.7	0.0	1.0	0.0	.5	0.0	.3	0.0	.2	0.0	.1	4.4	507.7(4302)	9.8	4.6
2300	.4	-.4	.5	-.2	.3	-.5	.3	-.6	.2	-.6	.1	-.6	4.0	507.6(3472)	9.9	3.5
2305	.6	0.0	.6	-.1	.6	.2	.6	.4	.7	.7	.8	1.1	4.6	507.7(3471)	9.8	5.0
2310	1.3	1.7	1.1	1.4	1.5	2.1	1.7	2.4	2.0	2.7	2.3	3.0	5.2	508.1(3461)	9.7	5.4
2315	.8	1.6	.6	1.3	.9	1.8	1.0	2.0	1.1	2.2	1.1	2.4	4.6	509.2(3451)	9.8	4.2
2320	-.1	1.4	-.1	1.2	-.1	1.5	-.1	1.7	-.1	1.9	-.2	2.0	4.1	509.9(3441)	10.1	3.7
2325	-.8	1.4	-.8	1.4	-.8	1.3	-.8	1.1	-.7	.9	-.7	.5	4.0	510.4(3422)	10.1	3.7
2330	.2	1.1	.3	1.5	.1	.8	0.0	.4	-.1	-.1	-.3	-.5	5.1	510.5(3421)	9.9	5.6
2335	1.2	.6	1.2	1.0	1.1	.3	1.1	0.0	1.1	-.1	1.1	-.1	5.6	509.4(3411)	9.9	5.4
2340	1.2	.1	1.2	0.0	1.3	.1	1.3	.2	1.4	.4	1.6	.7	5.5	509.2(3401)	9.7	5.5
2345	1.8	1.2	1.7	.8	1.9	1.6	2.0	2.0	2.1	2.4	2.2	2.9	5.7	509.4(3391)	9.6	6.0
2350	2.1	3.1	1.8	2.5	2.3	3.6	2.6	4.1	2.9	4.5	3.1	4.8	5.3	509.4(3381)	9.8	5.0
2355	2.4	4.1	2.1	3.8	2.6	4.3	2.9	4.5	3.2	4.5	3.4	4.5	4.2	509.3(3371)	10.0	3.6
0	2.6	3.4	2.5	3.6	2.6	3.2	2.6	3.0	2.6	2.8	2.4	2.5	3.3	509.2(3352)	9.9	2.8
5	2.4	2.5	2.7	2.8	2.1	2.3	1.7	2.0	1.4	1.7	1.0	1.4	3.3	509.0(3342)	10.2	3.2
10	.8	1.1	1.1	1.5	.5	.7	.3	.4	0.0	.1	-.2	-.3	4.1	509.7(3332)	10.4	4.1
15	-.2	-.5	-.1	-.2	-.2	-.7	-.2	-.9	-.1	-1.0	0.0	-1.0	4.7	510.2(3322)	10.2	4.6
20	0.0	-1.0	-.2	-1.2	.2	-.8	.3	-.6	.3	-.3	.4	-.2	4.5	510.2(3311)	10.2	4.0
25	.6	.2	.6	0.0	.5	.2	.4	.1	.3	0.0	-.1	-.1	4.6	510.0(3301)	10.2	4.4
30	0.0	.1	.3	.3	-.2	0.0	-.4	-.2	-.4	-.2	-.3	-.2	4.7	509.8(2471)	9.9	4.6
35	-.9	-.7	-.9	-.8	-.8	-.6	-.7	-.4	-.6	-.2	-.6	-.1	3.9	509.5(2461)	10.4	3.0
40	0.0	.5	0.0	.5	0.0	.5	0.0	.3	0.0	.1	0.0	-.1	4.1	509.1(2442)	11.0	3.7
45	0.0	1.1	0.0	1.3	0.0	.9	0.0	.8	0.0	.7	0.0	.9	5.0	508.7(2432)	10.8	4.8
50	0.0	.7	0.0	.4	0.0	1.2	0.0	1.7	0.0	2.2	0.0	2.7	4.2	508.4(2421)	10.1	3.4
55	0.0	1.6	0.0	1.2	0.0	2.0	0.0	2.3	0.0	2.4	0.0	2.4	3.1	508.8(2411)	9.8	2.7
100	0.0	2.5	0.0	2.7	0.0	2.2	0.0	1.8	0.0	1.5	0.0	1.1	3.3	508.7(2401)	10.0	3.3
105	0.0	1.3	0.0	1.7	0.0	1.0	0.0	.6	0.0	.2	0.0	-.2	3.2	507.9(2382)	9.9	2.8
110	0.0	-.8	0.0	-.4	0.0	-1.2	0.0	-1.6	0.0	-2.1	0.0	-2.5	1.6	506.5(2372)	10.1	.4
115	0.0	-1.5	0.0	-1.0	0.0	-2.0	0.0	-2.5	0.0	-3.0	0.0	-3.4	1.5	505.0(2361)	10.4	1.5
120	0.0	-1.6	0.0	-1.2	0.0	-2.0	0.0	-2.2	0.0	-2.4	0.0	-2.4	3.5	504.7(2351)	10.0	4.1
MEAN	.8	.8	.8	.8	.8	.8	.8	.7	.8	.7	.8	.6	4.1	508.7	10.0	3.9
DEV	1.0	1.3	.9	1.2	1.0	1.4	1.0	1.5	1.1	1.7	1.2	1.8	.9		.3	1.1
RMS	1.3	1.6	1.3	1.6	1.3	1.7	1.4	1.8	1.4	1.9	1.5	2.0				
CORR L		.75(SLOPE= .55)											.03	0.00		.06
CORR A													.18	0.00		.12

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	2	6	7	4	1	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	1	4	6	12	3	4	1	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 61 BAFFIN CRUISE,OCT 1963

TRACK-103 KNOTS 180 DEGS WIND- 04 KNOTS 216 DEGS ACC- VERTICAL= 07 KMGL SURGE= 04 KMGL SWAY= 07 KMGL
LACOSTE NORMAL. SHIP OFF COURSE BY 20 DEG AT 0358. OCT 18
ASKANIA NORMAL EXCEPT MINICOM RECORD OUT OF INK 0505 TO 0545,STRAIGHT LINE USED SERVO ON
SPECTRA-VERT CENTER PERIOD= 6.1SECS,WIDTH=.05CPS.SURGE= 8.3SECS,.03CPS.SWAY= 8.3SECS,.04CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
255	-3.0	-2.8	-2.8	-2.5	-3.2	-2.9	-3.2	-2.9	-3.3	-2.7	-3.3	-2.5	-3.1	504.4(2331)	10.2	182.8
300	-1.9	-.9	-2.0	-1.2	-1.8	-.4	-1.7	0.0	-1.5	.5	-1.3	.9	-1.7	504.5(2341)	10.2	181.8
305	-1.9	.7	-2.0	.2	-1.7	1.1	-1.6	1.4	-1.5	1.6	-1.5	1.9	-2.0	504.9(2352)	10.3	182.8
310	-1.2	2.2	-1.3	2.1	-1.2	2.4	-1.1	2.5	-.8	2.7	-.6	3.0	-1.4	505.3(2362)	10.5	181.4
315	-1.3	2.2	-1.7	1.9	-1.0	2.5	-.6	2.9	-.1	3.4	.3	3.9	-.5	507.3(2381)	10.3	180.7
320	.1	3.6	-.4	3.2	.5	4.1	1.0	4.6	1.4	5.0	1.7	5.4	-.2	508.2(2391)	10.4	180.6
325	1.1	4.8	.7	4.4	1.4	5.2	1.7	5.4	2.0	5.7	2.3	5.9	-.7	508.7(2401)	10.7	181.4
330	1.0	4.6	.7	4.3	1.3	4.9	1.6	5.1	1.9	5.2	2.2	5.3	-2.3	508.7(2412)	10.9	183.4
335	.7	3.7	.6	3.7	.8	3.6	.9	3.5	.9	3.4	.9	3.1	-4.0	508.6(2431)	10.8	184.8
340	-1.2	.8	-1.1	1.1	-1.3	.4	-1.4	.1	-1.1	.2	-.3	1.0	-5.8	508.9(2441)	10.2	187.0
345	-5.7	-4.3	-6.9	-5.6	-4.1	-2.6	-2.4	-.6	-.5	1.7	1.4	4.1	-11.9	509.3(2451)	10.0	196.1
350	-3.8	-.6	-5.8	-3.1	-1.8	2.0	.1	4.4	1.5	6.2	2.4	7.3	-18.9	509.6(2462)	10.3	202.4
355	1.5	6.6	1.3	6.2	1.3	6.1	.7	4.8	-.3	3.1	-1.7	1.1	-19.4	510.1(3302)	10.2	200.1
400	3.6	5.8	5.1	7.9	1.9	3.7	.2	1.6	-1.5	-.6	-3.3	-2.8	-12.5	510.2(3311)	11.0	189.5
405	2.3	2.4	4.2	4.7	.3	.3	-1.6	-1.3	-3.4	-2.8	-5.0	-4.1	-5.1	510.2(3322)	11.4	183.1
410	-2.0	-.8	-.5	.4	-3.3	-2.1	-4.5	-3.3	-5.5	-4.5	-6.5	-5.3	-1.0	509.7(3332)	10.4	180.5
415	-5.0	-3.8	-4.4	-3.2	-5.4	-4.1	-5.4	-4.2	-5.1	-4.3	-4.7	-4.4	.2	509.0(3342)	10.1	179.9
420	-2.5	-2.5	-2.9	-2.6	-2.1	-2.4	-1.7	-2.3	-1.3	-2.1	-.9	-1.8	2.3	509.2(3352)	10.1	177.0
425	0.0	-1.0	-.4	-1.3	.3	-.6	.5	-.3	.8	0.0	.9	.3	2.7	509.2(3362)	9.9	177.7
430	-.4	-.9	-.5	-1.1	-.3	-.6	-.3	-.3	-.2	0.0	-.1	.3	1.5	509.3(3372)	9.9	179.3
435	-.2	.3	-.3	.1	-.2	.4	-.1	.5	-.1	.6	-.1	.7	1.3	509.4(3382)	10.1	178.8
440	.1	1.0	.1	.9	.1	.9	0.0	.9	-.1	.8	-.1	.8	1.4	509.3(3392)	10.3	178.9
445	.3	1.3	.4	1.3	.3	1.3	.3	1.4	.3	1.5	.3	1.7	1.8	509.2(3402)	10.2	178.2
450	-.1	1.4	-.2	1.2	-.1	1.6	0.0	1.8	.2	2.2	.5	2.6	2.3	510.1(3412)	10.4	178.0
455	-.5	1.7	-.9	1.2	0.0	2.2	.4	2.8	.9	3.5	1.3	4.3	1.1	510.4(3422)	10.4	179.8
500	-.5	2.8	-1.0	2.0	.1	3.6	.7	4.3	1.3	4.9	1.8	5.4	-1.4	510.1(3432)	10.4	182.9
505	.7	4.2	.4	4.0	.9	4.3	1.0	4.2	1.0	3.9	1.0	3.6	-3.3	509.6(3442)	10.4	184.2
510	1.2	3.3	1.2	3.8	1.1	2.7	.9	2.1	.9	1.5	.9	.9	-4.0	508.7(3452)	10.3	184.7
515	0.0	.9	0.0	1.4	0.0	.5	0.0	.2	0.0	-.2	0.0	-.4	-4.4	507.8(3462)	9.8	185.2
520	0.0	0.0	0.0	.2	0.0	-.1	0.0	-.1	0.0	0.0	0.0	.1	-4.0	507.6(3472)	9.9	184.4
525	0.0	.4	0.0	.2	0.0	.7	0.0	1.0	0.0	1.5	0.0	2.0	-3.7	507.7(4302)	10.6	184.2
530	0.0	.4	0.0	-.1	0.0	.9	0.0	1.3	0.0	1.7	0.0	2.1	-5.4	508.1(4312)	10.3	186.8
MEAN	-.6	1.1	-.7	1.1	-.6	1.2	-.5	1.2	-.4	1.3	-.4	1.4	-3.1	508.5	10.3	183.7
DEV	2.0	2.6	2.4	2.8	1.7	2.4	1.7	2.4	1.8	2.7	2.2	3.0	5.4		.3	5.9
RMS	2.1	2.9	2.5	3.1	1.9	2.8	1.8	2.8	2.0	3.0	2.3	3.4				
CORR L		.85(SLOPE= .62)											.01	0.00		-.12
CORR A													-.21	0.00		.14

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	1	1	1	1	4	3	9	5	2	0	1	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	2	1	1	5	4	6	4	2	3	2	1	1	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 62 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 004 DEGS WIND- 10 KNOTS 302 DEGS ACC- VERTICAL= 06 KMGL SURGE= 05 KMGL SWAY= 09 KMGL
LACOS,V NORMAL. OCT 18
ASKANIA NORMAL. SERVO ON
SPECTRA-VERT CENTER PERIOD= 5.0SECS,WIDTH=.06CPS.SURGE=11.0SECS,.04CPS.SWAY= 5.0SECS,.13CPS. CROSS COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
650	-.1	.2	.1	.5	-.2	-.1	-.3	-.3	-.4	-.5	-.4	-.7	4.1	508.1(4312)	10.0	3.8
655	.3	-.1	.4	.1	.2	-.5	.1	-.9	0.0	-1.2	0.0	-1.5	4.4	507.7(4302)	10.2	4.3
700	-.2	-1.9	-.2	-1.7	-.2	-2.0	-.2	-1.9	-.2	-1.6	-.2	-1.3	4.1	507.6(3472)	10.2	3.6
705	-.8	-1.6	-.8	-1.9	-.7	-1.1	-.6	-.5	-.5	.2	-.4	.7	3.7	507.8(3462)	10.3	3.3
710	-1.5	.1	-1.5	-.4	-1.4	.5	-1.3	.8	-1.2	.8	-1.2	.8	3.6	508.7(3452)	10.6	3.0
715	-1.3	.7	-1.2	.8	-1.5	.4	-1.7	.2	-1.9	-.1	-2.1	-.5	4.5	509.6(3442)	10.7	4.4
720	-.4	.9	-.3	1.3	-.5	.5	-.7	0.0	-.9	-.3	-1.1	-.6	6.8	510.1(3432)	10.6	7.2
725	.4	.7	.4	.9	.5	.6	.6	.5	.8	.6	.9	.8	8.5	510.4(3422)	10.4	8.7
730	.2	.3	.1	0.0	.4	.7	.7	1.1	1.0	1.6	1.3	2.0	7.4	510.1(3412)	10.5	6.3
735	-.8	.2	-1.0	-.3	-.5	.7	-.2	1.1	0.0	1.5	.2	1.7	4.3	509.2(3401)	11.0	2.5
740	-.7	.7	-.9	.6	-.7	.7	-.6	.6	-.6	.5	-.7	.3	3.3	509.4(3391)	11.1	2.8
745	.1	1.0	.1	1.1	.1	.8	0.0	.5	0.0	.3	0.0	.1	4.2	509.4(3381)	10.3	4.2
750	.6	.6	.7	.8	.6	.4	.6	.2	.5	.1	.4	.1	4.7	509.3(3371)	10.0	4.7
755	.5	.2	.6	.3	.5	.2	.4	.3	.4	.3	.3	.5	4.9	509.2(3361)	10.0	4.7
800	.1	.5	.2	.4	.1	.7	.1	1.0	0.0	1.2	0.0	1.3	4.7	509.1(3351)	10.1	4.4
805	-.6	.7	-.7	.6	-.7	.8	-.7	.9	-.7	1.0	-.7	1.1	4.6	509.7(3332)	10.4	4.2
810	-1.2	.7	-1.2	.6	-1.2	.8	-1.2	.9	-1.1	1.0	-1.1	1.1	4.5	510.2(3322)	10.8	3.9
815	-1.2	1.1	-1.3	.9	-1.2	1.2	-1.1	1.3	-1.2	1.3	-1.2	1.2	4.4	510.2(3312)	10.4	3.9
820	-.9	1.4	-.8	1.6	-1.0	1.0	-1.0	.6	-1.0	.2	-1.1	-.2	4.5	510.0(3301)	10.0	4.5
825	-1.0	-.3	-.9	0.0	-1.0	-.7	-1.1	-1.2	-1.1	-1.6	-1.1	-1.8	4.5	509.8(2471)	10.3	4.2
830	-1.1	-1.8	-1.1	-1.8	-1.1	-1.7	-1.1	-1.5	-1.2	-1.3	-1.2	-1.1	4.3	509.5(2461)	10.3	3.8
835	-1.3	-1.0	-1.3	-1.2	-1.3	-.7	-1.2	-.3	-1.2	.1	-1.1	.4	3.7	509.1(2442)	10.0	3.3
840	-1.2	.6	-1.1	.4	-1.2	.7	-1.3	.7	-1.4	.6	-1.4	.5	3.3	508.7(2432)	10.3	2.9
845	-1.0	.8	-.8	1.1	-1.2	.4	-1.4	0.0	-1.6	-.4	-1.8	-.7	3.7	508.4(2422)	10.1	3.6
850	-1.5	-.6	-1.4	-.3	-1.6	-.9	-1.7	-1.2	-1.7	-1.4	-1.8	-1.5	4.5	508.8(2411)	10.0	4.6
855	-1.6	-1.4	-1.7	-1.4	-1.5	-1.2	-1.5	-1.1	-1.4	-1.0	-1.4	-.8	4.5	508.7(2401)	10.1	4.1
900	-1.7	-.9	-1.7	-1.1	-1.7	-.6	-1.6	-.3	-1.5	0.0	-1.4	.3	3.6	508.2(2391)	9.9	3.1
905	-.2	1.7	-.2	1.5	-.2	1.8	-.2	1.9	-.2	1.9	-.2	1.8	3.2	506.5(2372)	10.1	2.8
910	.7	2.5	.6	2.6	.7	2.3	.8	2.0	.7	1.6	.7	1.3	2.7	505.3(2362)	10.2	2.2
915	1.1	1.4	1.2	1.8	1.0	1.0	.9	.6	.9	.2	.7	-.3	2.6	504.7(2351)	10.3	2.3
920	1.1	.1	1.5	.5	.8	-.3	.4	-.6	0.0	-.9	-.3	-1.1	3.2	504.5(2341)	10.4	3.1
925	-.1	-.9	.1	-.7	-.3	-.9	-.5	-.8	-.6	-.7	-.7	-.6	3.5	504.3(2322)	10.2	3.1
930	-.8	-.5	-.8	-.7	-.8	-.3	-.8	-.1	-.8	0.0	-.8	.2	3.2	504.1(2312)	10.2	2.7
MEAN	-.4	.1	-.4	.2	-.5	.1	-.5	.1	-.5	.1	-.5	.1	4.2	508.3	10.3	3.9
DEV	.7	1.0	.8	1.0	.7	.9	.7	.9	.7	.9	.8	1.0	1.2		.2	1.3
RMS	.9	1.0	1.0	1.1	.9	1.0	.9	.9	1.0	1.0	1.0	1.0				
CORR L		.37(SLOPE= .29)											.09	0.00		.13
CORR A													.01	.03		.05

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	2	16	10	5	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	3	5	9	14	1	1	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 63 BAFFIN CRUISE,OCT 1963

TRACK-099 KNOTS 180 DEGS WIND- 32 KNOTS 024 DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL
LACOSTE NORMAL. OCT 21
ASKANIA NORMAL. SERVO ON
ACCELERATION DATA INCOMPLETE. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2250	-4.1	-4.1	-3.0	-4.0	-4.2	-3.9	-3.4	-3.5	-2.9	-2.9	-2.5	-2.2	-1.6	504.3(2322)	10.0	182.1
2255	-3.4	-2.8	-3.8	-3.5	-2.8	-2.3	-2.4	-2.0	-2.2	-1.9	-1.9	-1.8	-2.7	504.5(2341)	10.0	183.9
2300	-1.5	-2.0	-2.2	-2.1	-1.1	-2.2	-1.0	-2.4	-.8	-2.7	-.6	-3.0	-2.8	504.7(2351)	9.6	183.2
2305	-.2	-2.8	-.2	-2.6	-.4	-3.1	-1.0	-3.4	-2.4	-3.6	-3.5	-3.5	-2.1	505.0(2361)	10.0	182.5
2310	-5.1	-4.9	-5.0	-5.0	-5.0	-4.6	-5.0	-4.3	-4.7	-3.9	-4.3	-3.5	-2.2	506.5(2372)	10.4	182.8
2315	-4.9	-4.2	-5.6	-4.8	-3.9	-3.5	-2.3	-2.5	.1	-1.6	2.1	-.8	-2.0	507.9(2382)	10.5	182.4
2320	1.7	-1.6	.6	-2.3	2.9	-1.0	4.0	-.5	4.7	0.0	5.1	.5	-2.8	508.7(2401)	10.3	183.7
2325	5.3	1.0	5.1	.5	5.0	1.4	4.0	1.8	3.0	2.1	2.9	2.3	-2.6	508.8(2411)	10.1	182.9
2330	3.7	3.2	3.6	3.0	3.2	3.3	2.8	3.4	2.8	3.4	3.0	3.3	-2.4	508.4(2421)	10.1	182.9
2335	1.6	1.6	1.4	1.7	1.9	1.3	2.6	.9	3.2	.5	3.5	.1	-3.6	508.7(2432)	9.9	184.9
2340	1.9	-1.5	2.3	-1.1	1.3	-1.9	.5	-2.4	-.6	-2.9	-1.2	-3.3	-4.5	509.1(2442)	10.2	185.2
2345	-2.6	-4.6	-2.1	-4.2	-3.0	-5.0	-3.6	-5.4	-4.4	-5.9	-5.3	-6.5	-4.9	509.5(2461)	9.8	185.8
2350	-4.9	-6.2	-4.3	-5.5	-5.2	-6.7	-5.6	-7.1	-5.9	-7.4	-6.1	-7.5	-3.7	509.8(2471)	9.9	183.6
2355	-5.0	-6.4	-5.0	-6.4	-4.7	-6.2	-4.5	-5.8	-4.4	-5.3	-4.2	-4.7	-2.3	510.0(2481)	10.1	182.6
0	-4.2	-4.4	-4.6	-5.1	-3.7	-4.0	-3.1	-3.6	-2.5	-3.4	-1.9	-3.2	-2.5	510.2(3311)	10.2	183.3
5	-.9	-2.6	-1.3	-2.6	-.4	-2.6	.5	-2.6	1.5	-2.6	1.7	-2.7	-1.8	510.3(3321)	10.2	181.8
10	1.4	-2.3	2.1	-2.3	.6	-2.3	0.0	-2.2	-.4	-2.2	-.9	-2.2	-2.0	509.7(3332)	9.8	182.9
15	-1.4	-2.1	-.8	-2.1	-2.1	-2.2	-2.8	-2.5	-3.2	-3.0	-2.8	-3.3	-2.7	509.0(3342)	9.6	183.6
20	-1.8	-3.6	-2.9	-3.4	-.5	-3.7	.4	-3.8	1.0	-3.8	1.6	-3.7	-2.6	509.2(3352)	9.8	183.0
25	2.7	-3.1	2.0	-3.3	3.7	-2.8	4.6	-2.2	5.2	-1.3	5.7	-.4	-2.1	509.2(3362)	10.0	182.6
30	4.3	-1.3	4.1	-2.0	4.2	-.9	3.9	-.8	3.1	-.9	1.8	-.9	-3.7	509.3(3372)	9.7	185.3
35	-.7	-2.2	.6	-2.1	-2.3	-2.4	-3.7	-2.9	-4.8	-3.8	-5.6	-4.8	-4.8	509.4(3382)	9.6	185.8
40	-5.4	-5.0	-5.1	-4.3	-5.2	-5.4	-4.6	-5.5	-3.7	-5.5	-2.6	-5.5	-4.3	509.3(3392)	9.5	184.8
45	-2.6	-6.5	-3.7	-6.6	-1.6	-6.3	-.7	-5.8	0.0	-5.2	.5	-4.6	-5.6	509.2(3402)	9.2	187.7
50	.2	-4.7	-.1	-5.2	.3	-4.3	.4	-4.0	.6	-3.8	1.0	-3.7	-5.3	510.1(3412)	9.5	185.6
55	3.2	-1.6	3.0	-1.7	3.5	-1.6	3.6	-1.7	3.5	-1.8	3.3	-1.9	-3.0	510.4(3422)	9.8	182.7
100	3.2	-1.6	3.8	-1.4	2.0	-2.0	.7	-2.4	-.4	-3.0	-1.2	-3.4	-2.7	510.1(3432)	10.1	183.6
105	-3.3	-5.0	-2.5	-4.7	-4.0	-5.1	-4.8	-5.2	-5.7	-5.4	-6.6	-5.7	-4.5	509.6(3442)	9.8	186.1
110	-4.7	-3.9	-4.5	-3.6	-4.3	-4.2	-4.1	-4.5	-4.4	-4.7	-4.9	-5.1	-3.3	508.7(3452)	10.1	182.9
115	-1.2	-1.8	-.8	-1.0	-1.4	-2.9	-.9	-3.6	.4	-4.0	1.6	-4.0	-.2	507.8(3462)	10.6	179.5
120	.9	-4.8	.4	-5.2	1.3	-4.1	2.3	-3.1	3.4	-2.0	4.2	-.8	-1.5	507.6(3472)	10.1	183.2
125	2.0	-2.4	1.0	-4.0	3.3	-.9	4.1	.4	4.5	1.4	4.8	2.0	-4.7	507.7(4302)	10.6	186.1
130	2.7	-.2	2.2	-.6	3.2	-.1	3.7	-.1	4.6	-.2	5.5	-.3	-6.9	508.1(4312)	10.0	188.3
135	5.2	-1.0	4.9	-.9	5.0	-1.1	5.1	-1.1	5.3	-1.0	5.4	-1.0	-7.1	508.5(4321)	10.0	187.7
MEAN	-.5	-2.8	-.6	-2.8	-.4	-2.7	-.3	-2.6	-.1	-2.5	0.0	-2.5	-3.2	508.5	9.9	183.9
DEV	3.2	2.1	3.1	2.1	3.2	2.2	3.2	2.2	3.4	2.3	3.6	2.4	1.5		.3	1.8
RMS	3.3	3.6	3.2	3.6	3.3	3.5	3.3	3.5	3.4	3.5	3.7	3.5				
CORR L		.75(SLOPE= 1.12)											-.20	0.00		.22
CORR A													0.00	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	6	2	4	1	5	2	2	4	4	2	2	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	3	6	5	4	9	3	1	1	1	1	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 64 BAFFIN CRUISE,OCT 1963

TRACK-104 KNOTS 004 DEGS WIND- 32 KNOTS 048 DEGS ACC- VERTICAL= 41 KMGL SURGE= KMGL SWAY= KMGL
OCT 22
LACOSTE RECORD MISSING.
SERVO ON
ASKANIA NORMAL.
ACCELERATION DATA INCOMPLETE. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
305	0.0	-5.5	0.0	-5.9	0.0	-5.0	0.0	-4.3	0.0	-3.6	0.0	-2.9	1.3	507.6(4301)	10.0	1.2
310	0.0	2.7	0.0	2.1	0.0	3.2	0.0	3.6	0.0	4.1	0.0	4.5	6.5	507.7(3471)	10.2	8.8
315	0.0	7.5	0.0	7.2	0.0	7.8	0.0	7.9	0.0	7.9	0.0	8.0	9.5	508.1(3461)	10.2	9.7
320	0.0	5.4	0.0	5.2	0.0	5.7	0.0	6.3	0.0	7.0	0.0	7.7	7.9	509.2(3451)	10.2	6.7
325	0.0	7.0	0.0	6.5	0.0	7.3	0.0	7.5	0.0	7.8	0.0	8.0	7.3	509.9(3441)	9.8	7.7
330	0.0	7.2	0.0	6.9	0.0	7.4	0.0	7.4	0.0	7.3	0.0	7.4	6.7	510.3(3431)	10.4	5.9
335	0.0	5.1	0.0	5.0	0.0	5.4	0.0	5.8	0.0	6.1	0.0	6.2	4.4	510.5(3421)	11.6	2.6
340	0.0	6.6	0.0	6.9	0.0	6.2	0.0	5.6	0.0	4.8	0.0	3.9	4.0	509.4(3411)	10.6	3.9
345	0.0	3.5	0.0	4.3	0.0	2.6	0.0	1.9	0.0	1.4	0.0	1.2	4.3	509.2(3401)	9.3	4.5
350	0.0	-.5	0.0	-.5	0.0	-.5	0.0	-.6	0.0	-.6	0.0	-.6	2.7	509.4(3391)	9.7	1.7
355	0.0	-.3	0.0	-.3	0.0	-.3	0.0	-.5	0.0	-.7	0.0	-1.1	3.1	509.4(3381)	10.6	3.1
400	0.0	-1.0	0.0	-.8	0.0	-1.2	0.0	-1.2	0.0	-1.1	0.0	-.9	3.2	509.2(3362)	10.6	2.5
405	0.0	.4	0.0	.2	0.0	.8	0.0	1.1	0.0	1.5	0.0	1.8	4.3	509.2(3352)	10.8	4.3
410	0.0	3.2	0.0	3.0	0.0	3.3	0.0	3.4	0.0	3.5	0.0	3.3	5.3	509.0(3342)	11.1	4.7
415	0.0	1.8	0.0	2.0	0.0	1.4	0.0	1.0	0.0	.6	0.0	.2	5.0	510.1(3331)	11.0	4.2
420	0.0	.1	0.0	.4	0.0	-.1	0.0	-.1	0.0	0.0	0.0	.2	5.5	510.3(3321)	11.1	5.0
425	0.0	2.2	0.0	2.0	0.0	2.3	0.0	2.5	0.0	2.6	0.0	2.8	7.0	510.1(3302)	11.5	6.5
430	0.0	3.5	0.0	3.4	0.0	3.6	0.0	3.6	0.0	3.6	0.0	3.8	7.5	509.9(2472)	10.7	6.9
435	0.0	2.8	0.0	2.5	0.0	3.2	0.0	3.7	0.0	4.1	0.0	4.3	5.7	509.5(2461)	10.6	4.4
440	0.0	2.8	0.0	2.7	0.0	2.9	0.0	2.9	0.0	2.7	0.0	2.6	3.9	509.3(2451)	11.1	2.8
445	0.0	1.5	0.0	1.8	0.0	1.4	0.0	1.4	0.0	1.5	0.0	1.7	2.6	508.7(2432)	10.4	1.8
450	0.0	2.6	0.0	2.1	0.0	3.0	0.0	3.5	0.0	4.0	0.0	4.3	2.6	508.4(2422)	10.2	2.6
455	0.0	6.2	0.0	6.1	0.0	6.2	0.0	5.8	0.0	5.0	0.0	3.9	4.8	508.7(2412)	10.5	5.2
500	0.0	1.0	0.0	2.2	0.0	-.3	0.0	-1.6	0.0	-2.6	0.0	-3.4	3.1	508.7(2401)	10.6	1.3
505	0.0	-6.2	0.0	-5.5	0.0	-6.7	0.0	-6.6	0.0	-6.1	0.0	-5.2	.4	508.2(2391)	10.3	-.6
510	0.0	-.3	0.0	-1.3	0.0	.6	0.0	1.2	0.0	1.5	0.0	1.6	2.7	506.5(2372)	10.3	3.8
515	0.0	6.2	0.0	6.1	0.0	6.3	0.0	6.2	0.0	5.6	0.0	4.9	6.0	505.3(2362)	10.0	6.8
520	0.0	3.8	0.0	4.7	0.0	3.2	0.0	2.8	0.0	2.4	0.0	2.2	5.1	504.7(2351)	9.8	4.1
525	0.0	-.5	0.0	-.3	0.0	-.6	0.0	-.5	0.0	0.0	0.0	.8	2.4	504.5(2341)	10.4	1.1
530	0.0	1.4	0.0	.5	0.0	2.4	0.0	3.4	0.0	4.2	0.0	4.6	1.9	504.3(2322)	10.3	1.8
MEAN	0.0	2.3	0.0	2.3	0.0	2.3	0.0	2.4	0.0	2.4	0.0	2.5	4.5	508.5	10.4	4.1
DEV	0.0	3.3	0.0	3.2	0.0	3.3	0.0	3.3	0.0	3.3	0.0	3.3	2.1		.5	2.4
RMS	0.0	4.1	0.0	4.0	0.0	4.1	0.0	4.2	0.0	4.2	0.0	4.2				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.75	0.00		.70

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	1	1	0	0	0	1	6	2	3	5	3	2	2	3	1	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 65 BAFFIN CRUISE,OCT 1963

TRACK-098 KNOTS 180 DEGS WIND- 19 KNOTS 045 DEGS ACC- VERTICAL= 17 KMGL SURGE= KMGL SWAY= KMGL
LACOSTE RECORD ROUGH BUT READABLE. OCT 22
ASKANIA NORMAL. SERVO OFF
ACCELERATION DATA INCOMPLETE. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
645	3.1	-3.7	2.9	-3.8	3.2	-3.7	3.4	-3.6	3.5	-3.5	3.6	-3.3	-1.7	504.4(2331)	7.7	182.7
650	5.0	-1.8	4.8	-2.1	4.9	-1.4	4.2	-1.2	2.9	-1.1	1.8	-1.1	-.6	504.4(2332)	1.4	179.8
655	1.0	-1.7	1.3	-1.6	1.1	-1.7	1.2	-1.8	1.4	-2.0	1.3	-2.3	-1.0	504.4(2331)	6.3	183.0
700	.6	-3.2	.7	-2.9	.7	-3.5	1.3	-3.5	2.5	-3.4	3.9	-3.2	-1.4	504.7(2351)	12.1	181.8
705	4.1	-3.4	3.5	-3.6	3.8	-3.3	3.1	-3.3	2.6	-3.2	2.4	-2.9	-1.4	505.0(2361)	9.9	181.8
710	.2	-4.7	.3	-5.0	.2	-4.3	.4	-4.0	.7	-3.8	1.4	-3.6	-2.0	506.5(2372)	10.0	183.0
715	.5	-5.3	-.6	-5.6	1.8	-4.9	2.8	-4.5	3.4	-4.1	3.9	-3.6	-2.7	507.9(2382)	10.1	183.4
720	3.7	-4.0	3.1	-4.4	4.3	-3.7	5.1	-3.3	5.7	-3.1	5.6	-2.9	-2.9	508.5(2392)	10.2	183.5
725	3.4	-4.3	4.0	-4.5	2.9	-4.1	2.7	-3.9	2.8	-3.8	2.1	-3.8	-4.2	508.8(2411)	10.3	185.3
730	.1	-4.3	1.6	-4.3	-1.6	-4.4	-3.0	-4.6	-4.2	-4.9	-4.9	-5.3	-5.0	508.4(2421)	10.2	185.8
735	-3.9	-4.1	-3.5	-3.9	-4.4	-4.4	-4.9	-4.7	-5.3	-4.9	-4.9	-5.1	-3.3	508.7(2432)	9.9	182.9
740	-2.5	-3.9	-3.6	-3.8	-1.1	-3.9	.2	-3.9	1.3	-3.7	2.3	-3.5	-1.6	509.1(2442)	10.1	181.8
745	1.8	-4.9	.7	-5.1	3.1	-4.7	4.4	-4.4	5.5	-4.2	6.1	-4.0	-3.0	509.4(2452)	10.3	184.4
750	4.5	-5.8	4.2	-5.9	4.7	-5.7	4.7	-5.7	4.3	-5.7	3.3	-5.8	-4.4	509.8(2471)	10.5	185.2
755	2.2	-5.4	3.9	-5.2	.3	-5.5	-1.4	-5.8	-2.3	-6.0	-2.6	-6.2	-3.7	510.0(3301)	10.3	183.6
800	-2.1	-5.8	-2.1	-5.7	-1.6	-5.8	-1.0	-5.7	-.3	-5.4	.8	-5.1	-2.9	510.2(3311)	10.0	183.4
805	1.7	-5.4	.1	-5.8	3.4	-5.0	4.7	-4.6	5.3	-4.3	5.5	-4.0	-3.6	510.3(3321)	10.3	184.5
810	5.7	-3.8	5.5	-4.0	5.4	-3.7	4.7	-3.7	3.9	-3.9	3.4	-4.1	-4.2	509.7(3332)	10.6	184.7
815	4.2	-3.3	4.5	-3.0	4.1	-3.6	4.2	-3.9	4.4	-4.3	4.6	-4.6	-3.8	509.0(3342)	10.4	184.0
820	4.7	-4.8	4.7	-4.5	4.7	-5.0	4.9	-5.2	5.2	-5.3	5.5	-5.5	-3.4	509.2(3352)	10.5	183.8
825	5.7	-5.7	5.4	-5.6	5.9	-5.7	5.8	-5.7	5.6	-5.6	5.4	-5.5	-3.4	509.3(3371)	10.5	183.9
830	5.0	-5.6	5.1	-5.8	5.1	-5.3	5.2	-5.0	5.3	-4.6	5.4	-4.2	-3.6	509.4(3381)	10.4	184.2
835	5.3	-3.8	5.4	-4.2	5.3	-3.3	5.2	-2.8	5.2	-2.4	5.1	-2.0	-3.6	509.4(3391)	10.5	184.0
840	5.1	-1.5	5.2	-1.9	4.9	-1.2	4.7	-.9	4.6	-.7	4.6	-.5	-3.8	509.2(3401)	10.5	184.3
845	4.0	-1.0	3.9	-1.2	4.3	-.9	4.6	-.8	5.0	-.7	5.5	-.6	-4.3	509.4(3411)	10.4	185.0
850	4.6	-1.9	4.2	-1.9	5.0	-1.9	5.3	-1.9	5.6	-1.8	5.7	-1.9	-4.5	510.5(3421)	10.5	185.0
855	5.8	-1.8	5.9	-1.7	5.4	-1.9	5.1	-2.0	4.6	-2.2	4.1	-2.4	-4.6	510.1(3432)	10.2	185.3
900	3.6	-2.6	4.2	-2.3	3.1	-2.8	2.5	-3.2	1.9	-3.5	1.5	-3.8	-4.7	509.9(3441)	9.7	185.5
905	3.1	-2.3	3.3	-2.0	2.9	-2.6	2.8	-2.9	2.7	-3.2	2.8	-3.4	-3.6	509.2(3451)	9.6	183.8
910	5.6	-.9	5.4	-.8	5.8	-1.1	5.9	-1.4	5.9	-1.5	5.8	-1.5	-2.1	508.1(3461)	10.5	182.1
915	5.7	-1.6	5.7	-1.6	5.7	-1.6	5.6	-1.6	5.6	-1.5	5.6	-1.4	-2.7	507.7(3471)	11.0	183.5
920	3.9	-2.9	3.9	-3.1	3.9	-2.7	4.0	-2.3	4.2	-2.0	4.4	-1.7	-4.5	507.6(4301)	10.5	185.6
925	3.6	-2.4	3.5	-2.6	3.8	-2.1	3.9	-1.9	3.8	-1.8	3.6	-1.7	-5.1	507.8(4311)	10.3	185.7
930	2.9	-2.1	3.1	-2.2	2.8	-1.9	2.8	-1.8	2.8	-1.7	2.8	-1.6	-4.9	508.5(4321)	10.4	185.3
935	1.7	-2.6	1.6	-2.8	1.7	-2.5	1.7	-2.3	1.7	-2.1	1.7	-1.9	-4.9	509.8(4331)	10.2	185.5
MEAN	2.9	-3.4	2.9	-3.5	3.0	-3.4	3.0	-3.3	3.0	-3.3	3.1	-3.2	-3.3	508.4	9.8	183.9
DEV	2.4	1.4	2.5	1.5	2.4	1.4	2.5	1.4	2.6	1.4	2.7	1.5	1.2		1.7	1.3
RMS	3.8	3.8	3.9	3.9	3.9	3.7	4.0	3.7	4.1	3.6	4.1	3.6				
CORR L		.33(SLOPE= .54)											-.22	0.00		.19
CORR A													0.00	0.00		-.02

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	1	0	2	0	2	3	4	4	7	7	5	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	4	6	8	6	8	3	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 66 BAFFIN CRUISE,OCT 1963

TRACK-099 KNOTS 004 DEGS WIND- 19 KNOTS 075 DEGS ACC- VERTICAL= 33 KMGL SURGE= 15 KMGL SWAY= 37 KMGL
LACOSTE RECORD TOO DISTURBED TO READ. OCT 22
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.9SECS,WIDTH=.06CPS.SURGE= 6.3SECS,.04CPS.SWAY= 5.9SECS,.04CPS. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1050	0.0	2.0	0.0	2.3	0.0	1.7	0.0	1.5	0.0	1.2	0.0	1.0	4.9	508.1(4312)	9.8	5.2
1055	0.0	1.6	0.0	1.8	0.0	1.4	0.0	1.3	0.0	1.2	0.0	1.2	5.4	507.7(4302)	9.7	5.4
1100	0.0	1.2	0.0	1.2	0.0	1.3	0.0	1.4	0.0	1.5	0.0	1.6	5.2	507.6(3472)	9.8	5.1
1105	0.0	1.9	0.0	1.7	0.0	2.0	0.0	2.1	0.0	2.2	0.0	2.3	5.5	507.8(3462)	10.8	5.1
1110	0.0	1.3	0.0	1.2	0.0	1.4	0.0	1.6	0.0	1.8	0.0	2.0	5.3	508.7(3452)	9.8	5.1
1115	0.0	1.1	0.0	.9	0.0	1.3	0.0	1.4	0.0	1.6	0.0	1.6	4.8	509.2(3451)	8.9	5.0
1120	0.0	1.9	0.0	1.8	0.0	1.8	0.0	1.7	0.0	1.6	0.0	1.5	5.6	509.9(3441)	9.9	6.1
1125	0.0	1.1	0.0	1.1	0.0	1.1	0.0	1.3	0.0	1.5	0.0	1.7	5.7	510.4(3422)	10.0	5.4
1130	0.0	.2	0.0	0.0	0.0	.4	0.0	.7	0.0	.8	0.0	.9	4.1	510.5(3421)	9.9	3.2
1135	0.0	1.6	0.0	1.4	0.0	1.6	0.0	1.7	0.0	1.6	0.0	1.6	3.6	509.4(3411)	9.9	3.4
1140	0.0	2.1	0.0	2.2	0.0	2.2	0.0	2.2	0.0	2.2	0.0	2.2	4.0	509.2(3401)	10.0	3.9
1145	0.0	2.3	0.0	2.4	0.0	2.2	0.0	2.1	0.0	2.1	0.0	2.1	4.3	509.4(3382)	10.0	4.3
1150	0.0	2.1	0.0	2.1	0.0	2.1	0.0	2.1	0.0	2.1	0.0	2.1	4.2	509.3(3372)	9.9	3.9
1155	0.0	1.9	0.0	1.9	0.0	1.9	0.0	1.9	0.0	1.9	0.0	1.9	4.0	509.2(3362)	10.1	3.6
1200	0.0	1.8	0.0	1.7	0.0	1.9	0.0	1.9	0.0	1.9	0.0	1.9	3.8	509.2(3352)	10.1	3.5
1205	0.0	2.0	0.0	2.0	0.0	2.1	0.0	2.0	0.0	2.0	0.0	1.9	3.6	509.0(3342)	10.1	3.3
1210	0.0	1.7	0.0	1.9	0.0	1.4	0.0	1.3	0.0	1.2	0.0	1.1	4.3	509.7(3332)	9.9	4.6
1215	0.0	1.0	0.0	1.1	0.0	.9	0.0	.9	0.0	.9	0.0	.9	4.9	510.2(3322)	10.1	4.7
1220	0.0	.7	0.0	.6	0.0	.7	0.0	.7	0.0	.5	0.0	.4	4.5	510.2(3311)	10.2	4.0
1225	0.0	.5	0.0	.6	0.0	.3	0.0	.2	0.0	.1	0.0	0.0	4.5	510.0(3301)	10.1	4.5
1230	0.0	.2	0.0	.2	0.0	.2	0.0	.3	0.0	.2	0.0	.2	4.6	509.8(2471)	10.1	4.3
1235	0.0	.1	0.0	.2	0.0	.1	0.0	-.1	0.0	-.2	0.0	-.4	4.1	509.4(2452)	10.0	3.7
1240	0.0	-.5	0.0	-.3	0.0	-.7	0.0	-.8	0.0	-.8	0.0	-.8	3.9	509.1(2442)	10.1	3.6
1245	0.0	-.4	0.0	-.4	0.0	-.4	0.0	-.4	0.0	-.3	0.0	-.3	4.0	508.7(2432)	10.3	3.7
1250	0.0	0.0	0.0	0.0	0.0	.1	0.0	.1	0.0	0.0	0.0	0.0	4.0	508.4(2421)	10.2	3.7
MEAN	0.0	1.1	0.0	1.1	0.0	1.1	0.0	1.1	0.0	1.1	0.0	1.1	4.5	509.2	9.9	4.3
DEV	0.0	.8	0.0	.8	0.0	.8	0.0	.8	0.0	.8	0.0	.8	.6		.3	.7
RMS	0.0	1.4	0.0	1.5	0.0	1.4	0.0	1.4	0.0	1.4	0.0	1.5				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.17	0.00		.29

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	6	7	12	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 67 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS 300 DEGS WIND- 09 KNOTS 029 DEGS ACC- VERTICAL= 11 KMGL SURGE= 13 KMGL SWAY= 23 KMGL
LACOSTE RECORD ROUGH BUT READABLE. OCT 22
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 6.7SECS,WIDTH=.11CPS.SURGE= 9.1SECS,.04CPS.SWAY= 8.3SECS,.08CPS. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1455	6.6	0.0	7.3	0.0	6.0	0.0	5.3	0.0	4.6	0.0	3.9	0.0	-50.7	513.3(3631)	10.7	298.5
1500	5.8	0.0	6.4	0.0	5.1	0.0	4.5	0.0	4.0	0.0	3.6	0.0	-49.8	511.7(3602)	10.4	298.5
1505	5.6	1.6	5.9	1.6	5.4	1.2	5.2	.9	5.0	.6	4.7	.3	-48.9	510.4(3581)	10.3	299.2
1510	5.2	.8	5.5	1.1	5.0	.6	4.9	.4	4.8	.2	3.6	0.0	-48.9	509.6(3561)	10.4	299.4
1515	2.1	-.5	3.3	-.3	1.8	-.6	1.5	-.8	1.2	-1.0	1.0	-1.2	-49.4	509.3(3532)	10.5	298.8
1520	1.6	-.7	1.7	-.5	1.4	-.8	1.2	-1.0	1.0	-1.3	1.9	-1.5	-49.6	508.4(3511)	10.4	297.7
1525	6.7	2.1	5.8	2.4	6.6	1.7	6.4	1.4	6.1	1.0	5.8	.6	-49.4	504.7(2782)	10.4	298.4
1530	7.3	2.0	7.7	2.5	7.0	1.6	6.6	1.2	6.2	.8	5.8	.4	-49.2	503.1(2761)	10.4	298.8
1535	6.0	.7	6.3	.9	5.6	.5	5.4	.3	5.2	.2	5.0	0.0	-50.0	501.8(2732)	10.6	298.1
1540	5.4	.5	5.5	.5	5.2	.4	5.0	.4	4.9	.3	4.8	.2	-51.0	500.3(2711)	10.7	297.8
1545	6.4	1.8	6.6	2.0	6.2	1.6	5.9	1.4	5.6	1.2	5.3	.9	-50.8	498.7(2682)	10.6	298.2
1550	6.6	2.2	6.8	2.4	6.4	1.9	6.1	1.7	5.9	1.5	5.6	1.3	-50.3	497.6(2661)	10.7	299.4
1555	5.9	1.7	6.1	1.8	5.7	1.7	5.6	1.6	5.5	1.6	5.4	1.6	-50.7	496.8(2632)	10.8	299.4
1600	4.4	.7	4.5	.7	4.3	.7	4.2	.8	4.2	.8	4.2	.8	-51.5	496.8(2611)	11.0	298.9
1605	2.8	-.6	2.8	-.6	2.8	-.6	2.8	-.6	2.9	-.5	2.9	-.5	-52.0	497.8(2582)	11.0	298.9
1610	1.5	-1.8	1.4	-2.0	1.6	-1.7	1.8	-1.4	2.1	-1.1	2.5	-.7	-51.4	499.9(2552)	10.8	298.9
1615	.6	-2.6	.2	-3.0	1.1	-2.2	1.6	-1.8	2.2	-1.4	2.9	-1.0	-50.9	502.6(2531)	10.8	298.6
1620	.3	-3.6	-.2	-4.1	.8	-3.2	1.3	-2.8	1.8	-2.4	2.2	-2.0	-51.6	505.0(2502)	11.0	298.7
1625	.7	-3.4	.3	-3.9	1.0	-2.9	1.4	-2.5	1.7	-2.0	2.1	-1.5	-51.7	506.9(1781)	11.0	299.4
MEAN	4.2	0.0	4.4	0.0	4.1	0.0	4.0	0.0	3.9	0.0	3.8	-.1	-50.4	502.9	10.6	298.7
DEV	2.3	1.8	2.5	2.1	2.1	1.6	1.9	1.4	1.7	1.2	1.4	1.0	1.0		.2	.5
RMS	4.9	1.9	5.1	2.1	4.7	1.6	4.5	1.4	4.3	1.2	4.1	1.0				
CORR L		.95(SLOPE= 1.22)											.46	0.00		-.03
CORR A													.56	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	1	2	5	4	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	1	2	1	2	1	4	6	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 68 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 120 DEGS WIND- 05 KNOTS 159 DEGS ACC- VERTICAL= 16 KMGL SURGE= 06 KMGL SWAY= 18 KMGL
LACOSTE NORMAL.MINOR SWAY SPECTRA PEAK AT 10.0 SECS. OCT 22
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.06CPS.SURGE= 6.3SECS,.06CPS.SWAY= 4.2SECS,.12CPS. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1750	9.5	4.1	10.1	4.9	8.9	3.3	8.1	2.5	7.3	1.8	6.7	1.1	47.3	505.0(2502)	10.0	120.9
1755	8.5	2.9	9.1	3.5	7.8	2.4	7.1	1.8	6.3	1.3	5.6	.8	47.3	502.6(2531)	9.9	119.4
1800	7.0	2.4	7.6	2.8	6.5	2.1	6.0	1.8	5.6	1.5	5.2	1.2	46.9	500.3(2551)	9.8	119.6
1805	6.4	2.6	6.8	2.8	6.1	2.4	6.0	2.2	5.9	1.9	5.8	1.7	46.6	498.4(2572)	9.8	120.0
1810	6.9	2.8	7.1	3.0	6.6	2.6	6.5	2.4	6.4	2.3	6.4	2.1	46.7	497.1(2601)	9.7	118.5
1815	7.4	3.1	7.5	3.2	7.2	2.9	6.9	2.8	6.6	2.7	6.4	2.7	47.3	496.7(2621)	9.7	116.4
1820	7.2	3.5	7.3	3.6	7.1	3.5	7.0	3.5	7.0	3.4	7.1	3.4	48.6	497.0(2642)	10.0	117.0
1825	7.4	3.7	7.4	3.7	7.5	3.7	7.7	3.7	7.9	3.7	7.9	3.7	49.8	498.0(2671)	10.4	118.4
1830	7.6	3.4	7.5	3.3	7.7	3.5	7.9	3.5	8.1	3.6	8.1	3.7	50.9	499.4(2692)	10.7	119.1
1835	7.1	2.8	7.1	2.7	7.1	2.8	7.0	2.9	7.1	3.0	7.2	3.1	51.3	500.9(2721)	10.8	119.7
1840	5.8	1.4	5.5	1.4	6.0	1.5	6.3	1.7	6.7	1.9	7.1	2.1	51.1	502.3(2742)	10.5	117.5
1845	6.3	1.0	5.8	.8	6.9	1.3	7.4	1.6	8.1	2.0	8.7	2.4	51.2	503.8(2771)	10.4	116.4
1850	7.2	.8	6.7	.4	7.5	1.2	7.8	1.7	8.2	2.1	8.6	2.6	51.0	505.6(2792)	10.6	119.0
1855	5.2	-.9	4.7	-1.3	5.5	-.5	5.9	-.2	6.3	.2	6.7	.5	50.6	509.0(3521)	10.7	120.4
1900	6.8	.4	6.4	.2	7.2	.7	7.6	.9	8.1	1.2	8.4	1.4	50.6	509.4(3542)	10.4	117.7
1905	8.3	1.2	7.9	.9	8.7	1.5	9.1	1.8	9.4	2.1	9.7	2.5	50.4	509.7(3562)	10.2	116.1
1910	8.6	1.4	8.3	1.1	9.2	1.7	9.8	2.1	10.2	2.4	10.6	2.7	50.1	510.8(3591)	10.3	117.4
1915	9.3	1.5	9.0	1.1	9.8	1.8	10.2	2.2	10.5	2.5	10.7	2.8	49.9	512.2(3612)	10.4	119.6
1920	8.6	.7	8.2	.3	8.9	.9	9.3	1.2	9.7	1.4	10.0	1.6	49.2	514.0(3641)	10.5	121.5
1925	8.3	-.1	8.0	-.4	8.7	.1	8.7	.3	8.7	.5	8.7	.6	49.1	515.9(3661)	10.4	120.7
MEAN	7.4	1.9	7.4	1.9	7.5	1.9	7.6	2.0	7.7	2.0	7.7	2.1	49.2	504.4	10.2	118.7
DEV	1.1	1.3	1.2	1.6	1.1	1.1	1.2	.9	1.4	.9	1.5	.9	1.6		.3	1.5
RMS	7.6	2.4	7.5	2.5	7.6	2.3	7.7	2.2	7.8	2.3	7.9	2.3				
CORR L		.26(SLOPE= .21)											-.21	.02		.23
CORR A													-.47	-.03		-.09

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	8	3	4	1	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	1	2	6	2	6	3	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 69 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 300 DEGS WIND- 10 KNOTS 175 DEGS ACC- VERTICAL= 07 KMGL SURGE= 07 KMGL SWAY= 12 KMGL
LACOSTE NORMAL. OCT 22
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 7.2SECS,WIDTH=.11CPS.SURGE=10.0SECS,.06CPS.SWAY= 9.1SECS,.06CPS. CROSS COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2040	0.0	1.9	0.0	2.0	0.0	1.7	0.0	1.6	0.0	1.4	0.0	1.2	-49.4	513.0(3622)	10.5	298.2
2045	2.4	1.6	2.5	1.8	2.3	1.4	2.2	1.2	2.0	1.0	1.8	.8	-50.4	511.4(3601)	10.5	296.9
2050	2.0	.8	2.0	1.0	2.1	.6	2.1	.3	2.1	.1	2.0	-.2	-51.3	510.2(3572)	10.7	296.3
2055	2.4	.2	2.6	.4	2.1	-.1	1.9	-.4	1.7	-.8	1.3	-1.1	-51.4	509.5(3551)	10.7	296.8
2100	2.9	.7	3.5	1.1	2.2	.4	1.5	.1	.8	-.3	.2	-.7	-49.5	509.3(3531)	10.1	296.8
2105	2.1	1.4	2.7	1.8	1.5	.9	.9	.5	.2	0.0	-.4	-.5	-48.4	507.8(3502)	10.1	297.1
2110	2.5	2.5	3.1	3.0	2.0	1.9	1.5	1.3	1.1	.8	.7	.3	-48.3	504.4(2781)	10.2	298.2
2115	2.4	1.9	2.8	2.4	2.0	1.5	1.8	1.1	1.5	.7	1.3	.4	-47.7	502.9(2752)	10.1	299.5
2120	2.9	1.9	3.1	2.2	2.8	1.6	2.6	1.3	2.3	1.1	2.0	.9	-47.0	501.8(2732)	10.0	299.7
2125	3.3	2.1	3.5	2.4	3.0	1.9	2.6	1.7	2.1	1.4	1.7	1.2	-47.1	500.3(2711)	10.0	299.3
2130	2.4	2.1	2.8	2.3	1.9	1.9	1.4	1.6	1.0	1.4	.6	1.2	-47.6	498.7(2682)	10.1	298.7
2135	.8	1.5	1.2	1.8	.4	1.2	.1	1.0	-.1	.7	-.2	.5	-48.1	497.6(2661)	10.2	298.6
2140	-.6	.1	-.4	.3	-.7	0.0	-.6	-.1	-.5	-.1	-.3	-.1	-49.0	496.9(2641)	10.4	298.6
2145	-.6	-.7	-1.0	-.8	-.1	-.6	.2	-.5	.6	-.3	.9	-.2	-49.8	496.7(2612)	10.5	297.7
2150	1.3	0.0	1.0	-.1	1.5	.2	1.8	.3	2.1	.4	2.2	.5	-48.8	497.6(2591)	10.1	297.9
2155	2.5	.8	2.4	.7	2.5	1.0	2.6	1.1	2.8	1.3	3.1	1.6	-47.3	499.0(2562)	9.9	298.4
2200	.5	-1.3	0.0	-1.5	1.2	-.9	1.8	-.6	2.3	-.3	2.8	.1	-47.9	501.4(2541)	10.2	297.9
2205	.1	-2.8	-.4	-3.1	.5	-2.5	1.1	-2.1	1.6	-1.8	2.1	-1.4	-48.4	504.1(2512)	10.2	298.0
2210	1.3	-2.2	.9	-2.6	1.8	-1.8	2.4	-1.4	3.1	-.8	3.8	-.3	-47.6	506.1(1791)	10.1	300.2
2215	2.8	-1.4	2.1	-2.0	3.6	-.8	4.3	-.2	5.0	.4	5.0	.9	-47.4	508.0(1762)	10.2	300.6
MEAN	1.7	.5	1.8	.6	1.7	.4	1.6	.3	1.6	.3	1.6	.2	-48.6	503.8	10.2	298.2
DEV	1.1	1.5	1.3	1.7	1.0	1.2	1.0	1.0	1.2	.8	1.3	.7	1.2		.2	1.1
RMS	2.1	1.6	2.3	1.9	2.0	1.3	2.0	1.1	2.1	.9	2.1	.8				
CORR L		.56(SLOPE=	.43)										.17	.01		.10
CORR A													.01	0.00		-.12

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	2	1	4	6	6	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	1	1	3	3	4	7	1	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 70 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 120 DEGS WIND- 17 KNOTS 190 DEGS ACC- VERTICAL= 15 KMGL SURGE= 04 KMGL SWAY= 13 KMGL
LACOSTE RECORD ROUGH BUT READABLE.MINOR SWAY SPECTRA PEAK AT 10.0 SECS. OCT 22
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.05CPS.SURGE= 6.7SECS,.05CPS.SWAY= 6.2SECS,.10CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2335	6.4	4.6	7.0	5.1	5.7	4.1	4.9	3.5	3.9	3.0	3.1	2.4	49.1	506.1(1791)	10.5	119.7
2340	5.6	5.2	6.4	5.7	4.9	4.6	4.3	4.2	3.8	3.7	3.4	3.2	50.5	504.1(2512)	10.5	118.2
2345	4.7	4.4	5.0	4.8	4.5	4.0	4.4	3.6	4.5	3.2	4.4	2.7	49.4	501.4(2541)	10.0	117.3
2350	4.9	2.9	5.0	3.3	4.8	2.6	4.7	2.2	4.5	1.8	4.1	1.4	47.5	499.0(2562)	9.6	117.4
2355	5.5	2.9	5.9	3.2	5.1	2.5	4.7	2.2	4.2	2.0	3.8	1.7	48.1	497.8(2582)	10.1	118.5
0	5.4	3.5	5.8	3.7	5.1	3.4	4.7	3.2	4.5	3.2	4.4	3.1	49.1	496.8(2611)	10.3	119.2
5	4.8	3.5	4.9	3.6	4.7	3.5	4.6	3.5	4.6	3.4	4.6	3.4	49.6	496.8(2632)	10.2	117.3
10	3.1	1.7	2.9	1.7	3.3	1.7	3.5	1.7	3.7	1.8	4.1	1.9	48.7	497.6(2661)	9.8	116.5
15	2.5	.1	2.1	-.1	3.0	.3	3.5	.5	4.1	.8	4.7	1.1	47.8	498.7(2682)	9.8	118.3
20	4.6	.9	4.2	.6	4.9	1.2	5.3	1.5	5.6	1.8	5.8	2.0	48.9	500.3(2711)	10.4	120.3
25	5.8	2.1	5.7	1.9	5.9	2.3	6.0	2.6	6.0	2.8	6.1	3.1	50.1	501.5(2731)	10.5	119.0
30	4.1	1.0	3.8	.8	4.6	1.2	5.1	1.4	5.7	1.7	6.4	1.9	49.2	502.9(2752)	10.1	119.1
35	6.2	1.4	5.5	1.0	6.8	1.7	7.2	1.9	7.8	2.2	8.5	2.5	49.8	504.4(2781)	10.6	120.0
40	6.6	.3	6.1	.1	7.0	.6	7.3	.8	7.5	1.1	7.8	1.4	50.7	507.8(3502)	10.5	118.2
45	5.4	-1.3	4.9	-1.5	6.1	-1.0	7.0	-.7	7.8	-.3	8.4	0.0	49.4	509.3(3531)	9.9	117.0
50	9.5	1.2	9.2	.8	9.8	1.5	10.2	1.8	10.7	2.1	11.1	2.4	50.4	509.5(3551)	10.6	118.7
55	12.5	3.7	12.1	3.4	12.6	3.9	12.4	4.1	12.2	4.2	11.9	4.3	52.0	510.2(3572)	10.9	119.1
100	9.0	1.7	9.1	1.5	8.9	1.8	8.7	2.0	8.4	2.1	8.4	2.3	50.5	511.4(3601)	10.2	118.3
105	6.8	.5	6.4	.3	7.5	.7	8.2	.9	9.0	1.2	9.8	1.5	50.0	513.0(3622)	10.4	118.2
110	10.4	1.5	9.5	1.2	11.4	1.8	12.4	2.1	13.3	2.4	13.9	2.7	51.8	515.0(3651)	10.8	117.8
MEAN	6.1	2.0	6.0	2.0	6.3	2.1	6.4	2.1	6.5	2.2	6.7	2.2	49.6	504.1	10.2	118.4
DEV	2.3	1.6	2.3	1.8	2.5	1.4	2.6	1.2	2.8	1.0	3.0	.9	1.1		.3	.9
RMS	6.6	2.7	6.5	2.8	6.8	2.6	7.0	2.5	7.2	2.4	7.4	2.4				
CORR L			.09(SLOPE= .14)										.82	.03		.19
CORR A													.05	-.01		.07

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	6	5	2	0	1	2	1
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	1	2	5	4	2	4	2	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 71 BAFFIN CRUISE, OCT 1963

TRACK-097 KNOTS 300 DEGS WIND- 23 KNOTS 209 DEGS ACC- VERTICAL= 06 KMGL SURGE= 11 KMGL SWAY= KMGL
LACOSTE RECORD NORMAL. OCT 23
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 9.1SECS, WIDTH=.06CPS. SURGE=11.0SECS, .02CPS. SWAY= SECS, CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
235	4.1	2.3	4.5	2.7	3.8	1.8	3.4	1.4	2.9	1.1	2.5	.7	-45.0	513.0(3622)	9.3	297.4
240	4.1	2.2	4.4	2.6	3.9	1.8	3.7	1.5	3.6	1.2	3.3	1.0	-44.5	511.7(3602)	9.6	301.3
245	3.9	1.9	4.3	2.0	3.6	1.7	3.5	1.6	3.6	1.5	3.6	1.4	-44.6	510.6(3582)	9.6	300.4
250	3.3	1.1	3.4	1.2	3.2	1.1	3.1	1.0	3.2	.9	3.3	.7	-45.7	509.6(3561)	9.7	298.3
255	2.8	-.2	2.6	0.0	2.8	-.5	2.7	-.7	2.5	-1.0	2.5	-1.2	-46.7	509.4(3541)	9.9	298.7
300	4.1	.2	4.2	.5	4.0	0.0	3.7	-.2	3.3	-.4	2.9	-.6	-45.6	508.8(3512)	9.6	299.9
305	4.9	1.7	5.3	1.8	4.5	1.6	4.2	1.5	3.9	1.4	3.6	1.3	-46.4	505.6(2792)	10.0	299.0
310	3.7	1.5	4.0	1.7	3.5	1.3	3.4	1.1	3.3	.8	3.1	.5	-47.8	503.8(2771)	9.9	295.8
315	5.1	2.3	5.3	2.7	5.0	1.9	4.8	1.4	4.6	1.0	4.4	.6	-46.8	502.5(2751)	9.5	296.2
320	6.2	2.3	6.5	2.7	5.8	1.9	5.3	1.6	4.9	1.3	4.6	1.0	-46.1	501.2(2722)	9.8	299.4
325	6.0	2.4	6.3	2.7	5.6	2.1	5.1	1.9	4.5	1.6	3.9	1.3	-45.8	499.7(2701)	9.7	298.7
330	4.8	2.5	5.4	2.8	4.4	2.2	4.2	2.0	3.9	1.7	3.5	1.5	-45.6	498.5(2681)	9.6	298.7
335	4.4	2.5	4.7	2.7	4.1	2.3	3.9	2.2	3.6	2.1	3.3	2.0	-45.5	497.3(2652)	9.7	299.0
340	2.9	1.7	3.1	1.8	2.8	1.7	2.7	1.6	2.8	1.6	3.0	1.6	-46.3	496.8(2632)	9.8	298.6
345	2.0	.3	1.7	.3	2.3	.4	2.8	.5	3.3	.6	4.0	.7	-47.5	496.8(2611)	10.3	300.6
350	2.4	-1.4	1.7	-1.6	3.1	-1.2	3.8	-1.0	4.2	-.8	4.5	-.6	-48.9	497.8(2582)	10.5	299.1
355	3.0	-2.0	2.8	-2.3	3.3	-1.7	3.6	-1.5	3.9	-1.2	4.1	-.9	-49.0	499.3(2561)	10.2	297.6
400	2.7	-2.0	2.7	-2.3	2.8	-1.7	2.8	-1.5	2.8	-1.2	3.0	-.9	-47.8	501.9(2532)	10.0	298.6
405	1.6	-2.5	1.2	-2.7	2.0	-2.2	2.6	-1.9	3.1	-1.6	3.6	-1.3	-47.1	504.5(2511)	10.0	299.4
410	2.5	-2.5	2.0	-2.9	2.9	-2.1	3.3	-1.6	3.8	-1.1	4.3	-.6	-46.6	506.5(1782)	9.9	299.8
415	3.8	-1.0	3.4	-1.5	4.1	-.4	4.6	.1	5.3	.6	6.0	1.1	-46.0	508.0(1762)	9.8	300.0
MEAN	3.7	.6	3.7	.7	3.6	.5	3.6	.5	3.6	.4	3.6	.4	-46.4	503.9	9.8	298.8
DEV	1.2	1.7	1.4	2.0	.9	1.5	.7	1.3	.7	1.1	.7	1.0	1.2		.2	1.3
RMS	3.9	1.9	4.1	2.2	3.8	1.6	3.8	1.4	3.7	1.2	3.8	1.1				
CORR L		.75(SLOPE= .50)											.49	0.00		-.15
CORR A													.63	0.00		-.15

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	7	3	2	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	4	2	3	1	9	2	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 72 BAFFIN CRUISE, OCT 1963

TRACK-102 KNOTS 120 DEGS WIND- 28 KNOTS 230 DEGS ACC- VERTICAL= 17 KMGL SURGE= KMGL SWAY= KMGL
LACOSTE RECORD NORMAL. OCT 23
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS, WIDTH=.05CPS. SURGE= SECS, CPS. SWAY= SECS, CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
550	1.9	4.8	4.2	5.2	.2	4.3	-1.0	3.9	-2.0	3.4	-3.2	3.0	48.5	504.5(2511)	10.4	121.7
555	-.8	5.9	.2	6.4	-1.7	5.4	-2.1	5.0	-1.2	4.5	.5	4.1	49.3	501.9(2532)	10.5	120.3
600	4.9	6.5	3.4	7.0	5.7	6.1	6.1	5.7	6.2	5.3	6.5	5.0	49.7	499.3(2561)	10.4	119.3
605	7.5	5.6	7.5	6.0	7.1	5.3	6.2	4.9	5.2	4.6	4.5	4.3	49.1	497.8(2582)	10.2	118.9
610	4.3	4.3	4.8	4.6	3.9	4.1	3.6	3.8	3.6	3.7	3.9	3.5	48.5	496.8(2611)	9.9	117.3
615	4.2	3.0	3.5	3.1	5.1	3.0	5.8	3.0	6.0	2.9	5.8	2.9	48.0	496.8(2632)	10.0	118.9
620	5.4	2.7	5.6	2.7	5.4	2.8	5.5	2.8	5.3	2.8	4.6	2.9	48.7	497.6(2661)	10.2	118.8
625	2.8	2.1	3.7	2.0	2.2	2.2	2.4	2.3	3.2	2.5	4.4	2.7	48.7	498.5(2681)	9.9	116.9
630	3.1	.9	2.3	.6	3.2	1.1	3.1	1.4	3.3	1.6	3.9	1.9	48.0	500.0(2702)	9.8	117.2
635	3.1	.5	2.3	.3	3.9	.6	4.8	.8	5.3	1.0	5.6	1.2	48.0	501.5(2731)	10.0	118.4
640	4.6	.7	4.9	.5	3.3	.9	1.3	1.1	-.1	1.3	-.6	1.5	48.7	502.9(2752)	10.2	119.3
645	-1.1	1.5	-.9	1.2	-1.5	1.8	-2.0	2.1	-2.1	2.4	-1.5	2.8	49.6	504.1(2772)	10.4	118.6
650	-1.6	1.6	-3.0	1.3	1.0	2.0	4.1	2.3	6.7	2.7	8.4	3.0	50.2	506.2(3501)	10.5	119.4
655	7.1	.8	5.8	.4	8.2	1.1	9.2	1.5	10.1	1.7	10.4	2.0	50.5	509.1(3522)	10.5	118.9
700	9.8	1.6	9.7	1.3	10.0	1.8	10.1	2.0	9.8	2.2	9.2	2.5	50.2	509.5(3551)	10.3	118.1
705	7.4	1.7	8.2	1.5	6.8	1.9	6.8	2.1	7.0	2.3	7.2	2.5	49.9	510.2(3572)	10.5	120.0
710	5.4	1.0	5.4	.7	5.1	1.2	4.7	1.5	4.7	1.7	5.2	1.9	48.9	511.1(3592)	10.1	118.9
715	3.9	.1	3.1	-.2	5.0	.3	5.6	.6	5.9	1.0	5.9	1.3	48.3	512.5(3621)	9.9	117.8
720	4.3	.3	4.5	-.1	4.5	.7	5.1	1.1	6.0	1.5	6.8	1.9	48.3	514.0(3641)	10.1	119.4
MEAN	4.0	2.4	3.9	2.3	4.0	2.4	4.1	2.5	4.3	2.5	4.6	2.6	49.0	503.9	10.2	118.8
DEV	2.9	1.9	2.9	2.2	2.9	1.7	3.2	1.4	3.4	1.2	3.4	.9	.7		.2	1.1
RMS	5.0	3.1	4.9	3.3	5.1	3.0	5.3	2.9	5.6	2.9	5.8	2.9				
CORR L		-.07(SLOPE= -.11)											.14	0.00		-.16
CORR A													.10	-.02		.35

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	1	2	0	0	1	3	4	4	0	2	1	0	1	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	2	5	5	2	1	1	2	1	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 73 BAFFIN CRUISE, OCT 1963

TRACK-101 KNOTS 300 DEGS WIND- 28 KNOTS 235 DEGS ACC- VERTICAL= 13 KMGL SURGE= KMGL SWAY= KMGL
LACOSTE RECORD NORMAL. OCT 23
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 4.5SECS, WIDTH=.10CPS. SURGE= SECS, CPS. SWAY= SECS, CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
840	4.8	2.3	5.1	2.7	4.4	2.1	4.1	1.8	3.8	1.5	3.4	1.2	-48.1	514.0(3641)	10.2	298.0
845	3.2	1.5	4.0	1.8	2.1	1.2	1.5	1.0	1.5	.7	1.5	.5	-49.2	512.2(3612)	10.5	298.5
850	3.6	2.4	3.6	2.6	3.5	2.2	3.4	2.0	3.3	1.8	3.4	1.6	-48.5	510.8(3591)	10.1	297.9
855	5.2	2.9	5.0	3.2	5.5	2.6	5.5	2.3	5.3	2.0	5.2	1.8	-47.9	509.9(3571)	10.1	298.1
900	6.0	2.3	6.0	2.6	5.7	2.0	5.2	1.7	4.6	1.4	3.9	1.1	-47.6	509.4(3542)	10.1	299.4
905	3.9	1.3	4.4	1.6	3.6	1.1	3.2	.8	3.0	.5	2.9	.2	-47.4	509.0(3521)	10.1	299.9
910	4.9	2.4	5.3	2.6	4.3	2.1	3.9	1.9	3.6	1.7	3.3	1.4	-47.9	506.2(2801)	10.2	299.0
915	4.7	3.0	5.1	3.2	4.1	2.7	3.5	2.4	2.8	2.1	1.9	1.8	-48.2	504.1(2772)	10.1	298.0
920	3.0	3.3	3.8	3.7	2.4	3.0	2.1	2.6	1.9	2.2	1.8	1.8	-47.8	502.5(2751)	10.0	298.5
925	3.0	2.7	3.0	3.0	3.2	2.5	3.5	2.2	3.9	1.9	4.4	1.7	-47.7	501.5(2731)	10.1	298.7
930	5.6	2.7	5.6	2.9	4.7	2.5	3.3	2.4	1.7	2.2	.3	2.0	-47.9	500.0(2702)	10.1	298.5
935	.3	3.1	1.6	3.3	-.9	2.9	-1.8	2.7	-2.4	2.5	-2.7	2.3	-48.1	498.5(2681)	10.2	298.8
940	-1.3	3.1	-1.6	3.4	-.3	2.9	.8	2.7	1.7	2.5	2.6	2.3	-48.3	497.3(2652)	10.3	299.6
945	4.1	2.7	3.1	2.8	4.8	2.6	4.7	2.5	3.8	2.5	2.9	2.4	-48.4	496.7(2631)	10.3	299.2
950	2.3	2.4	2.9	2.4	2.1	2.4	2.0	2.3	2.1	2.3	1.9	2.3	-48.1	496.9(2602)	10.1	298.3
955	.4	1.5	1.0	1.4	-.4	1.5	-1.2	1.6	-1.3	1.7	-.9	1.9	-47.8	498.1(2581)	10.1	298.5
1000	-2.0	.3	-2.7	.1	-1.3	.5	-.3	.8	.5	1.2	1.2	1.6	-48.5	499.3(2561)	10.3	298.5
1005	-.6	-.4	-1.2	-.8	.4	.1	1.8	.5	2.9	1.0	3.4	1.4	-48.2	501.9(2532)	10.1	298.7
1010	1.8	0.0	1.6	-.4	2.1	.4	2.3	.8	2.7	1.2	3.2	1.6	-47.4	504.5(2511)	10.0	298.7
MEAN	2.7	2.0	2.9	2.2	2.6	1.9	2.5	1.8	2.3	1.7	2.2	1.6	-48.0	503.8	10.1	298.6
DEV	2.3	1.0	2.4	1.2	2.1	.8	1.9	.7	1.8	.5	1.8	.5	.4		.1	.5
RMS	3.6	2.3	3.8	2.6	3.4	2.2	3.2	2.0	3.0	1.8	2.9	1.7				
CORR L		.44(SLOPE= .98)											.23	.02		-.13
CORR A													-.01	0.00		-.07

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	1	2	2	0	2	3	3	4	2	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	3	1	7	8	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 74 BAFFIN CRUISE,OCT 1963

TRACK-098 KNOTS 120 DEGS WIND- 23 KNOTS 225 DEGS ACC- VERTICAL= 15 KMGL SURGE= 08 KMGL SWAY= 26 KMGL
LACOSTE RECORD NORMAL. OCT 23
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.0SECS,WIDTH=.08CPS.SURGE= 6.7SECS,.06CPS.SWAY= 5.0SECS,.12CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1140	.1	5.0	-.4	5.4	.9	4.6	2.1	4.1	3.2	3.6	4.1	3.1	47.3	506.1(1791)	9.9	118.9
1145	6.6	4.8	6.3	5.3	6.4	4.2	5.9	3.7	5.4	3.2	5.1	2.7	47.6	504.1(2512)	9.9	118.7
1150	7.5	4.8	7.7	5.3	7.1	4.3	6.9	3.8	6.7	3.3	6.4	2.8	47.9	501.9(2532)	10.0	118.4
1155	9.0	5.2	9.3	5.7	8.7	4.7	8.4	4.3	8.2	3.8	7.9	3.4	48.3	499.3(2561)	10.0	118.5
1200	8.7	4.3	9.2	4.7	8.3	4.0	8.1	3.7	7.3	3.5	6.2	3.3	48.1	497.8(2582)	9.9	118.5
1205	5.7	3.8	6.9	4.0	4.8	3.7	4.1	3.6	3.4	3.5	2.7	3.5	47.8	496.8(2611)	9.9	118.8
1210	2.0	3.5	2.7	3.5	.9	3.5	-.1	3.5	-.6	3.5	-.5	3.5	47.7	496.7(2631)	10.0	119.4
1215	-1.3	2.5	-1.5	2.5	-1.1	2.6	-.9	2.7	-.3	2.9	.4	2.9	47.3	497.3(2652)	9.8	119.2
1220	-.4	1.3	-1.3	1.2	.8	1.5	2.2	1.6	3.3	1.8	4.1	2.0	46.7	498.5(2681)	9.7	119.2
1225	3.6	1.0	2.9	.8	4.4	1.1	5.1	1.3	5.5	1.5	5.8	1.7	46.8	499.7(2701)	9.8	119.1
1230	5.0	.9	4.8	.7	4.9	1.1	4.8	1.3	5.0	1.5	5.6	1.7	47.3	501.2(2722)	9.8	118.3
1235	5.2	1.1	4.8	.9	5.2	1.3	4.9	1.6	4.5	1.8	4.3	2.1	47.8	502.5(2751)	9.9	118.0
1240	3.1	1.1	3.0	.8	3.6	1.4	4.2	1.7	4.4	2.1	4.4	2.4	47.8	503.8(2771)	9.8	117.7
1245	2.7	.9	2.5	.5	3.3	1.2	4.2	1.5	5.2	1.8	6.0	2.1	47.7	505.6(2792)	9.8	117.7
1250	3.4	-.6	3.0	-.9	3.6	-.3	3.8	-.1	4.2	.2	4.7	.4	47.9	508.8(3512)	9.9	118.1
1255	5.0	.4	4.5	.2	5.2	.6	5.3	.8	5.3	1.0	5.2	1.2	48.2	509.4(3541)	10.0	118.1
1300	5.4	1.5	5.4	1.4	5.2	1.7	5.0	1.9	4.5	2.1	4.0	2.3	48.8	509.7(3562)	10.1	117.6
1305	2.7	1.5	3.0	1.3	2.4	1.7	2.1	2.0	1.9	2.2	2.1	2.5	48.6	510.6(3582)	10.0	118.0
1310	0.0	.5	-.2	.2	.5	.8	1.2	1.0	2.1	1.3	2.9	1.6	47.7	511.9(3611)	9.9	119.4
1315	2.1	.4	1.4	.1	2.7	.7	3.4	.9	4.1	1.2	4.9	1.4	47.6	513.3(3631)	10.0	119.8
1320	4.0	.1	3.3	-.2	4.6	.4	5.1	.7	5.5	1.0	5.9	1.3	48.0	515.4(3652)	10.1	119.6
MEAN	3.8	2.0	3.6	2.0	3.9	2.1	4.0	2.1	4.2	2.2	4.3	2.2	47.7	504.3	9.9	118.6
DEV	2.8	1.8	3.0	2.1	2.5	1.5	2.3	1.2	2.1	1.0	1.9	.8	.4		.1	.6
RMS	4.7	2.8	4.8	3.0	4.7	2.6	4.7	2.5	4.7	2.5	4.8	2.4				
CORR L		.39(SLOPE= .61)											.50	0.00		-.39
CORR A													.04	-.02		.06

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	1	3	0	2	4	2	4	1	1	1	2	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	1	3	7	2	1	3	4	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 75 BAFFIN CRUISE,OCT 1963

TRACK-097 KNOTS 300 DEGS WIND- 32 KNOTS 225 DEGS ACC- VERTICAL= 12 KMGL SURGE= 04 KMGL SWAY= 26 KMGL
LACOSTE RECORD NORMAL.MINOR SURGE SPECTRA PEAK AT 5.5 SECS. OCT 23
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 4.5SECS,WIDTH=.10CPS.SURGE=12.5SECS,.03CPS.SWAY= 4.2SECS,.08CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1445	6.3	1.9	6.6	2.1	5.8	1.8	5.1	1.6	4.3	1.4	3.7	1.3	-46.4	513.0(3622)	9.8	298.2
1450	4.7	2.1	4.7	2.3	5.0	2.0	5.5	1.8	5.8	1.6	5.9	1.4	-46.7	511.7(3602)	9.8	298.0
1455	7.2	2.5	7.2	2.7	7.0	2.3	6.7	2.0	6.3	1.8	6.0	1.6	-46.7	510.4(3581)	9.8	298.2
1500	6.6	2.7	7.3	2.9	5.8	2.5	4.9	2.2	4.3	2.0	4.0	1.8	-46.2	509.6(3561)	9.7	298.3
1505	4.0	1.8	4.2	2.0	4.0	1.5	4.4	1.3	5.0	1.1	5.5	.8	-46.2	509.3(3532)	9.7	298.3
1510	6.1	.7	5.7	1.0	6.2	.4	6.2	.1	6.0	-.2	5.4	-.5	-46.6	508.8(3512)	9.9	298.5
1515	8.0	2.8	9.0	3.1	6.7	2.5	5.4	2.2	4.1	1.9	3.0	1.6	-46.6	505.1(2791)	9.8	298.6
1520	3.7	2.9	4.5	3.1	3.2	2.6	2.9	2.3	2.6	2.0	2.5	1.7	-46.5	503.8(2771)	9.8	298.6
1525	4.3	2.8	3.9	3.1	5.0	2.5	5.8	2.3	6.7	2.0	7.5	1.8	-46.6	502.3(2742)	9.8	298.2
1530	9.3	2.8	8.8	3.1	9.6	2.6	9.5	2.4	8.4	2.1	6.4	1.9	-46.6	500.9(2721)	9.8	297.8
1535	5.4	3.0	7.7	3.2	3.3	2.7	1.8	2.4	.8	2.1	.2	1.8	-46.5	499.7(2701)	9.7	297.8
1540	1.5	3.1	1.7	3.3	1.4	2.9	1.6	2.7	2.9	2.5	5.0	2.3	-46.5	498.2(2672)	9.8	298.1
1545	8.1	2.9	5.8	3.1	9.8	2.8	10.6	2.6	10.9	2.5	10.7	2.4	-46.8	497.2(2651)	9.8	297.9
1550	11.0	2.7	11.2	2.9	10.7	2.6	10.2	2.4	9.3	2.3	8.4	2.1	-46.8	496.7(2631)	9.8	297.8
1555	7.8	2.3	8.6	2.3	7.3	2.2	7.2	2.2	7.3	2.2	7.5	2.2	-46.4	496.9(2602)	9.7	298.5
1600	6.4	.9	6.2	.9	6.6	1.0	6.9	1.1	7.3	1.3	7.8	1.5	-46.4	498.1(2581)	9.8	298.9
1605	7.3	.5	6.5	.2	7.9	.7	8.2	1.1	8.2	1.4	8.2	1.9	-46.6	499.3(2561)	9.9	299.0
1610	5.9	-.3	5.6	-.7	6.5	.2	7.3	.6	8.4	1.0	9.4	1.5	-46.5	501.9(2532)	9.8	298.6
1615	7.2	-.8	6.6	-1.3	7.6	-.4	8.6	.1	10.0	.6	11.2	1.1	-46.7	504.5(2511)	9.8	297.5
1620	8.8	-1.4	8.1	-2.0	9.2	-.8	9.5	-.1	9.3	.5	8.3	1.1	-47.8	506.5(1782)	9.9	295.2
MEAN	6.4	1.7	6.4	1.8	6.4	1.7	6.4	1.6	6.3	1.6	6.3	1.5	-46.6	503.6	9.7	298.1
DEV	2.1	1.3	2.0	1.5	2.3	1.1	2.5	.8	2.6	.7	2.7	.6	.3		0.0	.7
RMS	6.8	2.2	6.8	2.5	6.8	2.1	6.9	1.9	6.9	1.8	6.9	1.7				
CORR L		-.18(SLOPE= -.29)											-.41	0.00		-.30
CORR A													.47	0.00		.38

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	4	4	3	2	0	1
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	2	1	3	4	10	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 76 BAFFIN CRUISE,OCT 1963

TRACK-107 KNOTS 120 DEGS WIND- 22 KNOTS 226 DEGS ACC- VERTICAL= 14 KMGL SURGE= 06 KMGL SWAY= 34 KMGL
LACOSTE RECORD NORMAL. OCT 23
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.9SECS,WIDTH=.05CPS.SURGE= 6.7SECS,.06CPS.SWAY= 4.5SECS,.07CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1750	-5.3	4.1	-5.7	4.6	-4.0	3.5	-2.7	2.9	-2.0	2.3	-2.0	1.7	50.7	504.1(2512)	10.6	118.5
1755	.8	4.8	1.7	5.4	-.5	4.1	-1.4	3.5	-2.1	2.8	-2.9	2.2	51.8	501.4(2541)	10.6	115.9
1800	-.1	5.2	.7	5.8	-.9	4.7	-1.4	4.2	-1.4	3.7	-1.0	3.3	52.9	499.0(2562)	10.8	115.7
1805	1.6	5.0	1.0	5.3	2.0	4.7	1.9	4.5	1.9	4.3	2.3	4.1	53.6	497.6(2591)	10.9	116.3
1810	3.0	4.1	2.4	4.2	3.8	4.1	4.6	4.0	5.4	4.0	5.9	4.1	52.7	496.7(2621)	10.8	117.8
1815	4.8	2.9	4.7	2.9	5.0	3.0	5.3	3.1	5.3	3.1	4.9	3.2	51.9	497.0(2642)	10.9	120.0
1820	3.0	1.9	3.5	1.8	2.5	2.0	2.0	2.1	1.6	2.2	1.5	2.4	51.5	498.0(2671)	11.0	121.7
1825	0.0	.8	-.2	.7	.4	1.0	.9	1.1	1.5	1.3	2.4	1.5	51.2	499.4(2692)	10.8	120.8
1830	2.0	.4	1.1	.2	3.0	.6	4.0	.8	4.8	1.0	5.2	1.2	51.4	500.9(2721)	10.7	119.1
1835	4.5	.6	4.4	.4	4.5	.8	4.2	1.0	3.8	1.2	3.4	1.5	51.9	502.3(2742)	10.9	119.6
1840	1.7	.3	1.9	0.0	1.7	.6	1.6	.9	1.8	1.2	2.4	1.5	52.0	503.8(2771)	10.8	119.0
1845	.3	-1.1	-.5	-1.4	1.2	-.7	2.3	-.4	3.3	0.0	4.3	.3	50.8	505.6(2792)	10.4	118.6
1850	1.8	-2.6	1.1	-2.9	2.3	-2.2	2.8	-1.9	3.0	-1.6	3.2	-1.4	51.1	509.0(3521)	10.8	120.2
1855	4.3	-.1	4.2	-.4	4.5	.2	4.6	.5	4.7	.8	4.8	1.2	52.5	509.4(3542)	11.1	119.2
1900	4.0	.7	4.0	.4	4.2	1.0	4.5	1.3	4.5	1.6	4.0	2.0	52.1	509.9(3571)	10.6	117.5
1905	1.6	.3	2.0	0.0	1.6	.6	2.0	.9	2.7	1.2	3.5	1.5	51.3	511.1(3592)	10.5	117.9
1910	2.5	-.3	1.5	-.5	3.0	0.0	2.9	.4	2.7	.7	2.8	1.0	50.7	512.5(3621)	10.6	119.4
1915	2.2	.4	2.0	.2	2.5	.7	2.8	1.0	2.9	1.3	2.9	1.5	51.4	514.0(3641)	10.8	118.9
MEAN	1.8	1.5	1.6	1.4	2.0	1.5	2.2	1.6	2.4	1.7	2.6	1.8	51.7	503.9	10.7	118.6
DEV	2.2	2.2	2.3	2.5	2.1	1.9	2.1	1.6	2.2	1.4	2.3	1.2	.7		.1	1.5
RMS	2.9	2.7	2.9	2.9	3.0	2.5	3.2	2.4	3.3	2.2	3.5	2.2				
CORR L		-.29(SLOPE= -.29)											.34	0.00		.23
CORR A													.56	-.02		-.60

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	1	0	0	0	0	3	1	6	3	2	2	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	1	0	1	6	3	1	1	2	3	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 77 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS 300 DEGS WIND- 29 KNOTS 316 DEGS ACC- VERTICAL= 12 KMGL SURGE= 04 KMGL SWAY= 16 KMGL
LACOSTE RECORD IS DISTURBED BUT PART IS READABLE.MINOR SURGE SPECTRA PEAK AT 5.8SECS. OCT 23
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.0SECS,WIDTH=.10CPS.SURGE=11.0SECS,.05CPS.SWAY= 4.1SECS,.09CPS. CROSS COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE		SPD	COURSE
2030	0.0	-1.8	0.0	-1.4	0.0	-2.0	0.0	-2.3	0.0	-2.5	0.0	-2.7	-49.7	517.0(	0)	0.0	300.0
2035	0.0	-1.1	0.0	-.8	0.0	-1.5	0.0	-1.8	0.0	-2.3	0.0	-2.7	-49.9	514.8(	0)	0.0	0.0
2040	4.0	-1.2	5.3	-.8	3.0	-1.6	2.4	-2.0	2.0	-2.4	1.7	-2.8	-50.2	512.7(	0)	0.0	0.0
2045	4.1	-.4	4.4	-.1	3.9	-.8	3.8	-1.1	3.8	-1.3	4.2	-1.4	-48.7	511.5(	0)	0.0	0.0
2050	7.4	1.1	6.9	1.3	7.9	.9	8.0	.8	7.9	.7	7.8	.6	-47.2	510.3(	0)	0.0	0.0
2055	7.3	.2	7.5	.3	6.9	.1	6.3	.1	5.6	0.0	5.0	-.2	-47.9	509.9(	0)	0.0	0.0
2100	4.0	-.7	4.6	-.6	3.5	-.9	2.8	-1.1	2.1	-1.3	1.6	-1.5	-48.7	509.5(	0)	0.0	0.0
2105	3.1	-.1	3.3	.2	2.9	-.4	2.9	-.7	2.9	-1.0	2.9	-1.3	-49.2	507.2(	0)	0.0	0.0
2110	0.0	.1	0.0	.4	0.0	-.2	0.0	-.5	0.0	-.8	0.0	-1.2	-49.8	505.0(	0)	0.0	0.0
2115	0.0	1.1	0.0	1.4	0.0	.8	0.0	.5	0.0	.2	0.0	-.2	-48.4	503.8(	0)	0.0	0.0
2120	0.0	2.0	0.0	2.3	0.0	1.6	0.0	1.3	0.0	1.0	0.0	.8	-47.1	502.6(	0)	0.0	0.0
2125	0.0	.5	0.0	.8	0.0	.2	0.0	-.1	0.0	-.4	0.0	-.6	-48.7	501.0(	0)	0.0	0.0
2130	0.0	-.8	0.0	-.7	0.0	-1.0	0.0	-1.2	0.0	-1.5	0.0	-1.7	-50.4	499.4(	0)	0.0	0.0
2135	0.0	-1.3	0.0	-1.1	0.0	-1.5	0.0	-1.7	0.0	-1.9	0.0	-2.2	-51.0	498.2(	0)	0.0	0.0
2140	0.0	-1.9	0.0	-1.7	0.0	-2.1	0.0	-2.3	0.0	-2.4	0.0	-2.5	-51.7	497.0(	0)	0.0	0.0
2145	0.0	-.9	0.0	-.7	0.0	-1.0	0.0	-1.2	0.0	-1.3	0.0	-1.4	-49.8	497.1(	0)	0.0	0.0
2150	0.0	.2	0.0	.4	0.0	.1	0.0	0.0	0.0	-.1	0.0	-.1	-47.9	497.2(	0)	0.0	0.0
2155	0.0	-1.3	0.0	-1.4	0.0	-1.1	0.0	-.9	0.0	-.7	0.0	-.4	-47.7	498.6(	0)	0.0	0.0
2200	0.0	-1.3	0.0	-1.7	0.0	-.9	0.0	-.5	0.0	0.0	0.0	.4	-47.6	500.1(	0)	0.0	0.0
2205	0.0	-1.4	0.0	-1.9	0.0	-.9	0.0	-.3	0.0	.2	0.0	.7	-47.9	502.1(	0)	0.0	0.0
2210	0.0	-1.2	0.0	-1.6	0.0	-.7	0.0	-.2	0.0	.3	0.0	.8	-48.2	504.1(	0)	0.0	0.0
2215	0.0	-1.6	0.0	-2.0	0.0	-1.2	0.0	-.8	0.0	-.3	0.0	.1	-48.5	506.5(	0)	0.0	0.0
2220	0.0	-2.3	0.0	-2.7	0.0	-1.9	0.0	-1.5	0.0	-1.2	0.0	-.9	-48.9	509.0(	0)	0.0	0.0
MEAN	4.9	-.6	5.3	-.5	4.6	-.6	4.3	-.7	4.0	-.8	3.8	-.8	-48.6	510.1		0.0	0.0
DEV	1.7	1.0	1.4	1.2	1.9	.9	2.0	.9	2.1	1.0	2.1	1.1	.9			0.0	0.0
RMS	5.3	1.2	5.5	1.3	5.1	1.2	4.8	1.2	4.6	1.3	4.4	1.5					
CORR L		.74(SLOPE= 1.75)											.81	0.00			0.00
CORR A													.47	0.00			0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	2	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	4	10	5	3	1	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 78 BAFFIN CRUISE,OCT 1963

TRACK-098 KNOTS 120 DEGS WIND- 27 KNOTS 236 DEGS ACC- VERTICAL= 15 KMGL SURGE= 05 KMGL SWAY= 16 KMGL
LACOSTE RECORD NORMAL. OCT 23
SERVO OFF

SPECTRA-VERT CENTER PERIOD= 5.3SECS,WIDTH=.04CPS.SURGE= 7.1SECS,.06CPS.SWAY= 5.6SECS,.07CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2340	1.4	3.6	2.1	4.1	.5	3.2	-.2	2.7	-.4	2.3	-.8	1.8	48.5	505.8(1792)	10.0	116.5
2345	.9	4.3	2.1	4.7	-.6	3.9	-1.9	3.5	-3.2	3.2	-4.5	2.8	49.2	503.6(2521)	10.4	120.2
2350	-3.5	4.3	-2.6	4.7	-4.0	3.9	-4.3	3.5	-4.5	3.1	-4.6	2.7	48.4	500.8(2542)	10.2	121.2
2355	-2.8	3.8	-3.1	4.2	-2.3	3.3	-2.1	2.9	-1.7	2.5	-1.0	2.1	48.1	499.0(2562)	9.9	117.8
0	.2	2.4	-.4	2.7	.5	2.2	.6	1.9	.6	1.8	-.3	1.6	47.2	497.6(2591)	9.5	116.4
5	-.8	2.8	1.0	2.9	-3.4	2.7	-6.2	2.7	-8.8	2.7	-10.6	2.7	47.6	496.7(2612)	9.8	116.8
10	-11.2	3.0	-10.3	3.0	-11.5	3.1	-11.5	3.1	-11.4	3.1	-10.5	3.2	48.2	496.9(2641)	9.8	116.3
15	-9.8	1.9	-11.8	1.9	-7.1	2.0	-4.1	2.0	-1.6	2.1	-.4	2.2	47.5	497.6(2661)	9.7	117.7
20	-.4	1.5	-1.2	1.4	.2	1.6	.7	1.7	.9	1.9	.7	2.0	47.9	498.7(2682)	10.3	121.3
25	-1.6	.1	-1.4	-.1	-1.4	.3	-.9	.5	.2	.7	1.7	.9	47.3	500.3(2711)	9.8	119.3
30	1.9	.6	1.2	.4	1.7	.8	1.3	1.0	1.3	1.3	1.4	1.5	48.0	501.5(2731)	9.9	116.1
35	-.8	-.2	-.6	-.5	-1.6	.1	-2.4	.4	-2.8	.7	-3.2	1.0	47.5	502.9(2752)	9.6	116.8
40	-5.4	-.9	-5.4	-1.2	-4.9	-.6	-4.3	-.2	-3.5	.1	-2.4	.5	46.5	504.1(2772)	9.6	118.3
45	-.7	1.2	-2.0	.9	.9	1.6	2.0	2.0	2.7	2.3	3.4	2.7	48.9	506.2(3501)	10.4	118.1
50	3.3	1.8	2.2	1.5	4.6	2.2	5.8	2.5	6.3	2.7	6.2	3.0	50.7	509.1(3522)	10.5	118.1
55	2.7	-.4	2.5	-.7	3.2	-.2	3.8	.1	4.2	.3	4.1	.6	47.3	509.5(3551)	9.5	118.7
100	-.8	-3.1	.2	-3.3	-2.0	-2.9	-2.9	-2.7	-3.1	-2.5	-2.7	-2.4	43.9	509.9(3571)	9.1	120.0
105	-1.1	-1.1	-1.5	-1.2	-1.1	-1.0	-1.2	-.8	-1.3	-.7	-.9	-.6	45.9	510.8(3591)	9.8	118.4
110	.2	0.0	-.5	-.2	.8	.1	1.3	.3	1.8	.6	2.5	.8	47.7	512.2(3612)	9.9	118.4
115	1.6	-.6	.8	-.9	2.4	-.3	3.3	0.0	4.0	.2	4.6	.5	47.6	513.7(3632)	9.8	117.6
120	4.8	.3	4.1	0.0	5.6	.7	6.2	1.0	6.2	1.4	6.2	1.8	49.2	515.9(3661)	10.3	118.1
MEAN	-1.0	1.2	-1.1	1.1	-.9	1.2	-.8	1.3	-.6	1.4	-.5	1.4	47.7	504.4	9.8	118.1
DEV	3.8	1.9	3.8	2.1	3.8	1.7	4.0	1.5	4.3	1.4	4.4	1.3	1.3		.3	1.4
RMS	3.9	2.3	4.0	2.5	3.9	2.2	4.1	2.1	4.4	2.0	4.5	2.0				
CORR L		-.19(SLOPE= -.38)											.23	.02		.07
CORR A													.64	-.02		-.05

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	1	1	0	0	0	0	1	0	2	1	5	3	2	2	2	0	1	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	1	0	3	5	2	4	2	4	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 79 BAFFIN CRUISE,OCT 1963

TRACK-103 KNOTS 300 DEGS WIND- 28 KNOTS 257 DEGS ACC- VERTICAL= 11 KMGL SURGE= 04 KMGL SWAY= 15 KMGL
LACOSTE NORMAL.MINOR SURGE SPECTRA PEAK AT 3.8 SECS. OCT 24
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.0SECS,WIDTH=.11CPS.SURGE=11.0SECS,.05CPS.SWAY= 4.5SECS,.11CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
245	3.4	2.4	4.2	2.7	3.1	2.1	3.1	1.8	3.1	1.5	3.1	1.3	-50.7	512.2(3612)	10.5	297.6
250	4.5	2.5	4.6	2.8	4.3	2.3	4.2	2.1	3.7	1.9	2.8	1.7	-50.6	510.8(3591)	10.6	297.2
255	2.3	2.2	3.5	2.4	1.0	1.9	.2	1.6	-.2	1.3	-.1	.9	-50.9	509.7(3562)	10.6	296.8
300	1.3	1.5	.9	1.9	1.5	1.1	1.8	.6	2.3	.1	3.3	-.4	-50.2	509.4(3541)	10.4	297.5
305	6.4	1.0	5.2	1.5	7.1	.5	7.2	0.0	6.9	-.5	6.5	-1.0	-49.0	508.8(3512)	10.2	298.2
310	10.0	2.6	10.5	3.0	9.6	2.2	9.2	1.8	8.7	1.4	7.8	1.1	-48.1	505.6(2792)	10.2	299.5
315	8.9	2.6	9.7	3.0	8.5	2.3	8.3	1.9	8.3	1.6	8.2	1.2	-48.0	503.8(2771)	10.3	300.5
320	9.8	2.8	10.1	3.1	9.2	2.4	8.5	2.2	8.0	1.9	7.7	1.6	-47.6	502.3(2742)	10.2	300.5
325	8.7	2.6	8.9	2.8	8.4	2.3	8.0	2.0	7.5	1.7	7.0	1.5	-47.8	500.9(2721)	10.2	299.3
330	7.6	2.1	7.8	2.3	7.6	1.9	7.7	1.6	7.6	1.4	7.6	1.1	-48.2	499.7(2701)	10.2	298.9
335	8.3	1.7	8.5	2.0	8.0	1.5	7.6	1.3	7.2	1.2	7.0	1.0	-48.9	498.2(2672)	10.4	298.5
340	7.9	1.9	8.0	2.0	7.9	1.7	7.9	1.6	8.0	1.5	8.0	1.4	-48.8	497.2(2651)	10.2	298.2
345	8.7	2.0	8.6	2.0	8.8	2.0	9.0	2.0	9.0	2.0	8.7	2.0	-48.8	496.7(2622)	10.3	298.4
350	7.1	.8	7.5	.8	6.6	.8	6.4	.9	6.4	.9	6.4	1.0	-49.6	497.1(2601)	10.5	298.1
355	5.3	0.0	5.2	-.2	5.5	.1	5.7	.3	6.1	.5	6.6	.8	-49.5	498.4(2572)	10.3	298.0
400	5.7	-.3	5.2	-.6	5.9	0.0	5.7	.4	5.5	.8	5.4	1.2	-48.9	500.3(2551)	10.3	298.8
405	2.2	-1.5	2.3	-1.9	2.1	-1.2	1.9	-.8	1.9	-.4	2.2	-.1	-49.3	503.1(2522)	10.5	298.7
410	.2	-2.4	-.4	-2.7	1.0	-2.0	2.0	-1.7	3.0	-1.3	4.0	-.8	-49.6	505.3(1801)	10.4	298.2
415	4.1	-1.4	3.1	-1.7	5.1	-1.0	5.8	-.6	6.2	-.1	6.1	.3	-48.5	507.3(1772)	10.1	298.7
MEAN	5.9	1.2	5.9	1.3	5.8	1.1	5.8	1.0	5.7	.9	5.7	.8	-49.1	503.5	10.3	298.5
DEV	2.9	1.5	3.1	1.7	2.8	1.3	2.7	1.1	2.5	.9	2.3	.8	.9		.1	.9
RMS	6.6	2.0	6.7	2.2	6.5	1.7	6.4	1.5	6.3	1.3	6.2	1.2				
CORR L		.60(SLOPE= 1.14)											.75	-.02		.66
CORR A													.12	0.00		.15

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	2	2	1	3	3	2	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	1	2	2	2	7	5	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 80 BAFFIN CRUISE,OCT 1963

TRACK-101 KNOTS 120 DEGS WIND- 20 KNOTS 254 DEGS ACC- VERTICAL= 11 KMGL SURGE= 07 KMGL SWAY= 22 KMGL
LACOSTE NORMAL. OCT 24
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.06CPS.SURGE= 6.3SECS,.06CPS.SWAY= 4.8SECS,.12CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
535	5.9	2.6	6.1	2.9	5.7	2.1	5.4	1.6	4.9	1.1	4.5	.7	47.2	505.8(1792)	9.6	117.3
540	6.2	2.5	6.7	2.9	5.9	2.0	5.5	1.6	5.0	1.2	4.5	.8	47.2	503.6(2521)	9.7	117.1
545	7.9	4.3	8.5	4.8	7.3	3.9	6.6	3.4	5.9	3.0	5.0	2.5	48.4	500.8(2542)	10.2	119.0
550	7.4	5.2	8.2	5.7	6.7	4.8	6.4	4.4	6.2	4.0	6.0	3.7	49.6	498.7(2571)	10.2	117.0
555	7.2	4.8	7.4	5.1	7.1	4.5	7.1	4.3	7.2	4.1	7.4	3.9	49.6	497.3(2592)	10.3	118.7
600	7.8	3.9	7.6	4.1	7.8	3.7	7.7	3.6	7.5	3.5	7.4	3.5	49.1	496.7(2621)	10.3	120.0
605	6.6	2.7	6.7	2.8	6.4	2.7	6.3	2.6	6.2	2.6	6.1	2.6	48.6	496.9(2641)	10.1	118.8
610	5.8	2.4	5.8	2.3	5.7	2.4	5.6	2.5	5.4	2.6	5.3	2.7	49.3	497.8(2662)	10.3	118.8
615	4.6	2.0	4.5	1.9	4.7	2.1	4.8	2.2	5.0	2.4	5.1	2.6	49.7	499.1(2691)	10.2	117.1
620	2.9	.6	2.9	.4	3.1	.8	3.4	1.1	3.7	1.3	4.1	1.6	49.1	500.6(2712)	10.1	118.3
625	3.3	.6	2.8	.3	4.0	.9	4.8	1.3	5.6	1.6	6.3	1.9	49.2	502.0(2741)	10.5	120.8
630	5.4	.6	4.7	.3	6.0	.9	6.4	1.2	6.8	1.6	7.1	1.9	48.9	503.4(2762)	10.3	120.5
635	4.3	-.7	4.2	-1.0	4.2	-.4	4.2	0.0	4.3	.3	4.6	.7	47.4	504.7(2782)	9.7	118.9
640	1.8	-2.1	1.5	-2.4	2.2	-1.7	2.6	-1.4	2.9	-1.1	3.3	-.7	47.9	508.4(3511)	10.2	119.5
645	3.9	-.2	3.5	-.5	4.2	0.0	4.4	.2	4.5	.4	4.5	.6	49.1	509.3(3532)	10.2	117.7
650	4.5	.9	4.6	.7	4.6	1.1	4.8	1.2	5.0	1.4	5.2	1.6	49.4	509.5(3552)	10.1	117.3
655	4.9	1.3	4.7	1.1	5.1	1.4	5.3	1.6	5.5	1.8	5.7	1.9	49.7	510.4(3581)	10.5	119.8
700	4.3	.6	4.2	.4	4.3	.7	4.5	.9	4.6	1.1	4.7	1.2	49.6	511.7(3602)	10.1	117.4
705	3.5	.1	3.3	-.2	3.6	.3	3.7	.5	3.8	.7	4.0	1.0	49.5	513.0(3622)	10.1	116.9
710	2.1	-.9	1.8	-1.2	2.6	-.6	3.0	-.3	3.4	0.0	3.8	.3	49.3	515.0(3651)	10.1	117.0
MEAN	5.0	1.5	4.9	1.5	5.0	1.5	5.1	1.6	5.1	1.6	5.2	1.7	48.8	504.2	10.1	118.3
DEV	1.7	1.9	2.0	2.1	1.5	1.6	1.3	1.4	1.2	1.3	1.1	1.1	.8		.2	1.2
RMS	5.3	2.5	5.4	2.7	5.3	2.3	5.3	2.2	5.3	2.1	5.4	2.1				
CORR L		.92(SLOPE= .84)											-.05	-.03		.08
CORR A													.12	-.03		-.04

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4	3	3	2	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	1	2	2	6	2	3	2	2	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 81 BAFFIN CRUISE,OCT 1963

TRACK-100 KNOTS 184 DEGS WIND- 18 KNOTS 254 DEGS ACC- VERTICAL= 14 KMGL SURGE= 06 KMGL SWAY= 19 KMGL
LACOSTE NORMAL.BROAD MINOR SURGE SPECTRA PEAK AT 4.0 SECS. OCT 24
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.05CPS.SURGE= 6.3SECS,.06CPS.SWAY= 4.2SECS,.13CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1000	.9	1.6	.6	1.4	1.2	1.7	1.5	1.8	1.8	2.0	2.0	2.2	-2.2	504.4(2331)	10.2	182.8
1005	2.0	2.1	1.8	2.0	2.3	2.3	2.7	2.4	3.1	2.5	3.5	2.6	-2.3	504.5(2341)	10.3	182.7
1010	3.1	2.2	3.0	2.1	3.0	2.3	2.7	2.5	2.5	2.6	2.4	2.8	-2.3	504.9(2352)	10.2	182.8
1015	2.1	2.5	2.0	2.4	2.2	2.7	2.2	2.8	2.2	3.0	2.4	3.2	-2.3	505.3(2362)	10.2	182.8
1020	.6	1.4	.4	1.2	1.1	1.6	1.6	1.8	2.1	2.0	2.4	2.2	-2.3	507.3(2381)	10.2	182.8
1025	1.4	1.2	1.2	1.0	1.6	1.4	1.9	1.6	2.2	1.8	2.4	2.0	-2.6	508.2(2391)	10.2	183.3
1030	1.5	1.2	1.4	1.0	1.6	1.3	1.7	1.4	1.8	1.5	1.8	1.5	-3.1	508.8(2402)	10.1	183.8
1035	1.9	1.8	2.0	1.7	1.7	1.8	1.5	1.8	1.2	1.8	1.1	1.7	-3.0	508.7(2412)	10.1	183.4
1040	1.7	2.2	1.6	2.2	1.7	2.2	1.7	2.2	1.7	2.2	1.7	2.2	-2.7	508.4(2422)	10.2	183.2
1045	1.6	2.0	1.4	1.9	1.8	2.0	2.1	2.0	2.4	2.1	2.6	2.1	-2.6	508.9(2441)	10.1	183.1
1050	2.0	1.5	1.9	1.4	2.0	1.6	2.0	1.8	2.2	1.9	2.4	2.0	-2.8	509.3(2451)	10.1	183.5
1055	2.1	1.6	1.8	1.4	2.3	1.7	2.4	1.8	2.4	1.9	2.4	2.0	-3.3	509.5(2461)	10.1	184.0
1100	3.0	2.6	2.9	2.5	3.1	2.7	3.2	2.7	3.5	2.8	3.7	2.9	-2.4	509.9(2472)	10.6	182.3
1105	3.0	2.1	2.8	2.0	3.2	2.1	3.4	2.2	3.5	2.2	3.7	2.3	-3.1	510.1(3302)	10.2	184.2
1110	2.1	.5	1.9	.5	2.1	.5	1.9	.5	1.3	.4	.3	.3	-4.7	510.2(3312)	9.6	186.2
1115	-.3	.7	.8	.8	-1.1	.6	-1.5	.5	-1.7	.5	-1.9	.4	-4.2	510.2(3322)	10.0	184.4
1120	-.4	2.0	-.2	2.1	-.6	1.9	-.6	1.8	-.4	1.7	.2	1.7	-3.6	509.2(3341)	10.0	184.1
1125	1.2	1.9	.5	2.0	1.7	1.8	2.0	1.7	2.1	1.6	2.2	1.6	-3.4	509.1(3351)	9.9	184.0
1130	2.4	1.4	2.1	1.5	2.7	1.4	2.9	1.5	3.1	1.5	3.0	1.6	-3.3	509.2(3361)	9.9	184.0
1135	2.2	1.4	2.7	1.3	1.7	1.5	1.4	1.6	1.2	1.7	1.0	1.7	-3.6	509.3(3371)	10.0	184.3
1140	.3	1.2	.4	1.1	.3	1.2	.3	1.3	.4	1.4	.7	1.4	-4.1	509.4(3381)	9.9	185.0
1145	1.3	1.5	.8	1.5	1.7	1.5	1.9	1.5	1.9	1.5	1.8	1.4	-3.9	509.4(3391)	9.8	184.4
1150	2.8	2.5	2.9	2.5	2.6	2.4	2.4	2.3	2.2	2.1	2.0	2.0	-3.0	509.2(3401)	9.8	183.3
1155	2.5	2.3	2.4	2.4	2.6	2.2	2.8	2.2	3.0	2.2	3.2	2.3	-2.5	509.4(3411)	9.9	182.9
1200	1.9	.9	1.7	.8	2.2	1.2	2.4	1.6	2.7	1.9	3.0	2.2	-2.9	510.5(3421)	9.9	183.8
1205	2.1	1.6	1.9	1.1	2.2	2.5	2.2	3.3	2.1	4.0	2.1	4.5	-4.2	510.3(3431)	9.9	185.4
1210	1.8	4.4	1.8	4.2	1.8	4.5	1.8	4.4	1.7	4.3	1.6	4.2	-4.8	509.9(3441)	10.0	185.6
1215	2.4	4.9	2.7	5.3	2.2	4.3	2.1	3.5	1.9	2.9	1.6	2.3	-4.5	509.2(3451)	10.0	184.9
1220	2.6	3.3	3.0	3.7	2.1	3.0	1.7	2.7	1.5	2.4	1.4	2.2	-4.1	508.1(3461)	10.0	184.7
1225	1.6	2.3	1.7	2.5	1.7	2.1	1.7	2.0	1.8	1.9	1.9	1.8	-4.2	507.7(3471)	9.9	185.0
1230	1.9	1.7	1.9	1.8	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	-4.4	507.6(3481)	9.9	185.1
1235	1.9	1.4	1.9	1.5	2.0	1.4	2.1	1.4	2.2	1.4	2.5	1.4	-4.2	507.8(4311)	10.1	184.7
1240	2.1	.9	1.9	.8	2.5	.9	2.9	1.1	2.9	1.2	2.9	1.4	-4.2	508.5(4321)	10.1	184.8
MEAN	1.7	1.9	1.7	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	-3.3	508.5	10.0	183.9
DEV	.8	.9	.8	.9	.8	.8	.9	.7	1.0	.7	1.0	.8	.8		.1	.9
RMS	2.0	2.1	1.9	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2				
CORR L	.34(SLOPE= .31)												.13	0.00		-.10
CORR A													-.10	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	3	5	19	6	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	11	16	4	1	1	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 82 BAFFIN CRUISE,OCT 1963

TRACK-098 KNOTS 004 DEGS WIND- 13 KNOTS 261 DEGS ACC- VERTICAL= 07 KMGL SURGE= 07 KMGL SWAY= 16 KMGL
LACOSTE NORMAL. OCT 24
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.05CPS.SURGE=12.5SECS,.03CPS.SWAY=14.3SECS,.09CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1355	0.0	-1.3	0.0	-1.2	0.0	-1.5	0.0	-1.7	0.0	-1.9	0.0	-2.1	5.0	509.0(4322)	10.2	5.0
1400	0.0	-1.1	0.0	-1.0	0.0	-1.3	0.0	-1.4	0.0	-1.5	0.0	-1.6	5.2	508.1(4312)	10.0	5.1
1405	0.0	-1.5	0.0	-1.4	0.0	-1.7	0.0	-1.8	0.0	-2.0	0.0	-2.1	5.2	507.8(4311)	10.0	5.0
1410	0.0	-1.7	0.0	-1.5	0.0	-1.8	0.0	-1.9	0.0	-2.0	0.0	-2.0	5.6	507.6(3481)	10.0	5.7
1415	0.0	-2.1	0.0	-2.1	0.0	-2.0	0.0	-1.9	0.0	-1.8	0.0	-1.6	5.6	507.7(3471)	9.9	5.4
1420	0.0	-2.4	0.0	-2.6	0.0	-2.3	0.0	-2.0	0.0	-1.8	0.0	-1.5	4.9	508.1(3461)	9.8	4.6
1425	0.0	-2.9	0.0	-3.1	0.0	-2.6	0.0	-2.4	0.0	-2.2	0.0	-2.0	4.4	509.2(3451)	9.7	4.3
1430	0.0	-2.4	0.0	-2.6	0.0	-2.3	0.0	-2.2	0.0	-2.2	0.0	-2.2	4.6	509.9(3441)	9.7	4.7
1435	0.0	-1.9	0.0	-1.9	0.0	-2.0	0.0	-2.0	0.0	-2.1	0.0	-2.1	5.3	510.3(3431)	9.7	5.6
1440	0.0	-2.2	0.0	-2.2	0.0	-2.2	0.0	-2.1	0.0	-2.0	0.0	-1.9	5.3	510.5(3421)	9.7	5.2
1445	0.0	-1.7	0.0	-1.9	0.0	-1.4	0.0	-1.2	0.0	-1.0	0.0	-.9	4.3	509.4(3411)	9.7	3.7
1450	0.0	-1.4	0.0	-1.5	0.0	-1.2	0.0	-1.1	0.0	-1.0	0.0	-.9	3.5	509.2(3401)	9.8	3.1
1455	0.0	-1.0	0.0	-1.0	0.0	-1.0	0.0	-.9	0.0	-.9	0.0	-.9	3.6	509.4(3391)	9.8	3.6
1500	0.0	-.6	0.0	-.6	0.0	-.6	0.0	-.6	0.0	-.6	0.0	-.7	3.8	509.4(3381)	9.7	3.8
1505	2.3	-.3	3.0	-.3	1.6	-.5	1.0	-.6	.6	-.7	.5	-.8	4.1	509.3(3371)	9.7	4.2
1510	1.3	-.2	1.2	-.1	1.5	-.3	1.9	-.4	2.3	-.5	2.6	-.6	4.8	509.2(3361)	9.7	5.1
1515	3.2	-.2	3.0	-.2	3.5	-.2	3.7	-.1	3.9	-.1	4.0	0.0	5.0	509.1(3351)	9.9	4.9
1520	3.3	-.6	3.3	-.7	3.1	-.4	2.7	-.3	2.4	-.1	2.2	0.0	4.4	509.2(3341)	9.8	4.1
1525	.7	-1.3	.8	-1.4	.6	-1.2	.6	-1.1	.4	-1.0	.3	-1.0	4.0	510.1(3331)	9.8	3.7
1530	.1	-1.0	.3	-1.0	0.0	-1.0	0.0	-.9	.1	-.9	.2	-.9	4.0	510.2(3312)	9.9	3.9
1535	.4	-.8	.3	-.8	.4	-.8	.5	-.8	.5	-.7	.5	-.7	4.1	510.1(3302)	9.9	3.9
1540	.8	-.5	.8	-.4	.7	-.5	.7	-.5	.6	-.5	.6	-.6	4.1	509.9(2472)	10.0	3.9
1545	.9	-.4	.8	-.4	1.0	-.5	1.0	-.5	1.1	-.6	1.1	-.5	4.0	509.6(2462)	10.0	3.8
1550	.9	-.8	.8	-.8	.9	-.8	.9	-.8	.8	-.8	.7	-.9	3.4	509.3(2451)	9.8	3.0
1555	.8	-.7	.9	-.7	.5	-.8	.3	-.8	.2	-.9	.1	-1.0	3.2	508.9(2441)	10.0	3.0
1600	.4	-.6	.6	-.5	.3	-.7	.2	-.8	.1	-.9	0.0	-1.0	3.5	508.6(2431)	10.3	3.2
1605	.5	-.5	.6	-.4	.5	-.6	.4	-.7	.4	-.8	.4	-.8	4.1	508.7(2412)	10.0	4.2
1610	.6	-.8	.5	-.7	.7	-.8	.8	-.7	.9	-.7	1.1	-.6	4.3	508.8(2402)	9.9	4.2
1615	.6	-1.2	.4	-1.3	.7	-1.2	.8	-1.1	.8	-1.1	.8	-1.1	3.3	508.5(2392)	9.9	2.6
1620	1.3	-.5	1.4	-.5	1.3	-.5	1.2	-.7	1.0	-.8	.8	-1.0	2.8	507.3(2381)	9.9	2.5
1625	2.4	.7	2.7	.9	2.1	.5	1.8	.3	1.5	0.0	1.2	-.2	3.2	505.8(2371)	9.8	3.2
1630	2.3	.9	2.6	1.2	2.0	.7	1.8	.4	1.5	.2	1.3	-.1	3.8	505.0(2361)	9.7	3.9
1635	1.7	.5	2.0	.6	1.5	.3	1.3	.2	1.3	.2	1.3	.2	4.0	504.6(2342)	9.7	4.0
1640	1.1	.1	1.2	.1	1.1	.2	1.1	.2	1.1	.3	1.2	.4	3.7	504.4(2332)	9.7	3.4
1645	.6	-.2	.4	-.4	.8	-.1	.9	.1	1.1	.2	1.3	.3	2.9	504.3(2322)	9.7	2.4
MEAN	1.2	-.9	1.3	-.9	1.1	-.9	1.1	-.9	1.0	-.9	1.0	-.9	4.2	508.4	9.8	4.0
DEV	.9	.8	.9	.9	.8	.8	.8	.7	.8	.7	.9	.7	.7		.1	.8
RMS	1.5	1.3	1.6	1.3	1.5	1.2	1.4	1.2	1.4	1.2	1.4	1.2				
CORR L		.54(SLOPE= .87)											.33	0.00		.35
CORR A													-.52	-.01		-.43

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	3	12	4	2	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	1	7	15	9	3	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 83 BAFFIN CRUISE,OCT 1963

TRACK-102 KNOTS 184 DEGS WIND- 13 KNOTS 239 DEGS ACC- VERTICAL= 18 KMGL SURGE= 12 KMGL SWAY= 06 KMGL
LACOSTE NORMAL. OCT 24
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.05CPS.SURGE= 5.5SECS,.03CPS.SWAY= 4.2SECS,.18CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1800	0.0	2.1	0.0	2.1	0.0	2.1	0.0	2.1	0.0	2.1	0.0	2.1	-2.9	504.3(2322)	10.4	183.3
1805	7.4	2.4	7.5	2.5	7.5	2.4	7.7	2.4	7.9	2.4	7.9	2.4	-2.3	504.5(2341)	10.4	182.5
1810	8.0	2.7	8.1	2.6	7.8	2.7	7.4	2.7	7.1	2.7	6.9	2.8	-1.8	504.9(2352)	10.3	182.1
1815	6.4	2.5	6.5	2.4	6.5	2.7	6.8	2.9	7.4	3.1	8.0	3.3	-1.8	505.3(2362)	10.1	182.3
1820	7.0	2.1	6.5	1.8	7.5	2.3	8.0	2.6	8.5	2.8	8.9	3.0	-2.1	506.5(2372)	10.0	182.7
1825	7.4	1.6	7.3	1.4	7.3	1.7	6.9	1.8	6.4	1.9	5.8	1.9	-1.9	508.2(2391)	10.1	182.3
1830	5.5	2.1	5.9	2.0	5.3	2.1	5.3	2.1	5.5	2.2	6.0	2.3	-1.4	508.7(2401)	10.3	181.6
1835	6.2	2.0	5.6	1.9	6.9	2.1	7.7	2.3	8.4	2.5	9.0	2.8	-1.7	508.7(2412)	10.3	182.5
1840	8.6	2.0	8.0	1.8	9.0	2.2	9.3	2.3	9.6	2.5	9.7	2.7	-3.1	508.4(2422)	10.1	184.1
1845	8.5	1.7	8.5	1.5	8.4	1.8	8.4	1.8	8.4	1.9	8.3	1.9	-3.9	508.7(2432)	10.2	184.7
1850	7.4	1.3	7.6	1.2	7.1	1.3	6.7	1.4	6.5	1.4	6.4	1.5	-4.0	509.3(2451)	10.2	184.5
1855	6.5	1.5	6.4	1.5	6.8	1.6	6.9	1.7	7.0	1.8	7.3	2.0	-3.9	509.5(2461)	10.2	184.4
1900	7.2	1.7	6.9	1.6	7.7	1.9	8.3	2.0	8.6	2.2	8.7	2.4	-4.0	509.8(2471)	10.2	184.6
1905	8.0	1.7	7.9	1.6	8.0	1.9	8.1	2.0	8.1	2.1	8.0	2.1	-4.4	510.1(3302)	10.2	185.2
1910	8.5	2.5	8.5	2.6	8.3	2.4	8.1	2.3	7.6	2.1	7.0	1.9	-3.9	510.2(3312)	10.2	184.0
1915	7.2	2.7	8.0	2.9	6.4	2.5	5.9	2.4	5.6	2.2	5.7	2.2	-2.8	510.2(3322)	10.1	183.0
1920	6.3	2.4	6.0	2.5	6.5	2.4	6.7	2.4	7.0	2.4	7.6	2.4	-3.0	509.7(3332)	10.1	183.9
1925	8.4	2.7	7.9	2.7	8.8	2.7	9.1	2.7	9.3	2.7	9.3	2.7	-3.3	509.1(3351)	10.2	183.9
1930	8.8	2.4	9.0	2.4	8.8	2.4	8.8	2.4	8.8	2.4	8.8	2.4	-3.5	509.2(3361)	10.4	184.1
1935	8.6	2.2	8.6	2.2	8.6	2.2	8.6	2.3	8.6	2.3	8.7	2.4	-3.7	509.3(3371)	10.3	184.3
1940	8.6	2.3	8.6	2.3	8.5	2.4	8.5	2.5	8.4	2.6	8.4	2.6	-3.7	509.4(3381)	10.1	184.2
1945	8.2	2.5	8.2	2.4	8.3	2.6	8.5	2.7	8.5	2.7	8.2	2.7	-3.8	509.4(3391)	10.3	184.4
1950	8.2	3.1	8.6	3.1	7.8	3.1	7.5	3.1	7.3	3.0	7.2	2.9	-3.7	509.2(3401)	10.4	184.1
1955	7.0	2.7	7.0	2.7	6.9	2.6	6.6	2.6	6.3	2.6	6.4	2.5	-3.0	510.1(3412)	10.4	183.2
2000	7.1	2.7	6.6	2.7	7.7	2.8	8.3	2.8	8.8	3.0	9.1	3.1	-2.4	510.4(3422)	10.2	182.8
2005	9.4	3.2	9.1	3.1	9.7	3.4	10.2	3.6	10.9	3.7	11.2	3.9	-2.7	510.1(3432)	10.2	183.5
2010	9.8	2.9	10.1	2.8	9.4	2.9	8.9	3.0	8.7	3.0	8.6	2.9	-4.3	509.6(3442)	10.0	185.8
2015	7.9	2.1	7.9	2.2	7.8	2.0	7.6	1.8	7.2	1.6	7.0	1.4	-6.0	508.7(3452)	9.8	187.3
2020	8.4	2.6	8.4	2.8	8.7	2.5	8.9	2.3	9.0	2.2	8.9	2.0	-5.5	507.8(3462)	10.1	185.7
2025	9.7	3.0	10.0	3.1	9.4	2.9	9.1	2.8	9.0	2.8	9.0	2.8	-4.5	507.6(3472)	10.2	184.9
2030	9.1	2.9	9.1	2.9	9.2	3.0	9.1	3.1	9.0	3.2	9.0	3.3	-4.4	507.6(4301)	10.1	185.1
2035	8.8	3.0	8.7	3.0	9.0	3.1	9.3	3.1	9.5	3.1	9.6	3.0	-4.6	507.8(4311)	10.2	185.2
2040	8.4	1.8	8.4	1.8	8.4	1.7	8.4	1.6	8.6	1.6	8.8	1.6	-5.0	508.5(4321)	9.9	186.0
MEAN	7.8	2.3	7.8	2.3	7.9	2.3	7.9	2.4	8.0	2.4	8.1	2.4	-3.4	508.5	10.1	184.0
DEV	1.0	.4	1.1	.5	1.0	.4	1.0	.4	1.1	.5	1.2	.5	1.1		.1	1.2
RMS	8.0	2.4	7.9	2.4	8.0	2.4	8.1	2.5	8.1	2.5	8.2	2.5				
CORR L		.43(SLOPE= .90)											-.56	0.00		.57
CORR A													0.00	0.00		-.02

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	9	8	9	2	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	1	17	15	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 84 BAFFIN CRUISE,OCT 1963

TRACK-113 KNOTS 004 DEGS WIND- 10 KNOTS 279 DEGS ACC- VERTICAL= 09 KMGL SURGE= 07 KMGL SWAY= 08 KMGL
LACOSTE NORMAL. OCT 24
NEW GYRO INSTALLED IN ASKANIA PLATFORM, GYRO DRIFTING THROUGHOUT RUN, NO RESULTS SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.12CPS.SURGE=12.5SECS,.04CPS.SWAY=10.0SECS,.08CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2215	2.5	0.0	3.0	0.0	2.0	0.0	1.5	0.0	1.0	0.0	.6	0.0	7.3	509.9(3441)	10.0	7.4
2220	-.7	0.0	-.3	0.0	-1.0	0.0	-1.2	0.0	-1.3	0.0	-1.3	0.0	6.9	510.3(3431)	9.9	6.6
2225	-1.7	0.0	-1.9	0.0	-1.5	0.0	-1.1	0.0	-.7	0.0	-.4	0.0	6.5	510.5(3421)	10.3	6.1
2230	.6	0.0	.3	0.0	.9	0.0	1.2	0.0	1.5	0.0	1.8	0.0	6.1	509.4(3411)	10.1	5.8
2235	.4	0.0	.1	0.0	.7	0.0	1.0	0.0	1.1	0.0	1.2	0.0	4.2	509.2(3401)	10.2	2.9
2240	-.2	0.0	-.4	0.0	0.0	0.0	.2	0.0	.3	0.0	.4	0.0	2.8	509.4(3391)	10.5	2.1
2245	.3	0.0	.4	0.0	.3	0.0	.3	0.0	.3	0.0	.3	0.0	2.7	509.4(3381)	9.8	2.7
2250	.7	0.0	.7	0.0	.7	0.0	.8	0.0	.7	0.0	.6	0.0	3.1	509.3(3371)	9.4	3.2
2255	1.4	0.0	1.5	0.0	1.2	0.0	1.1	0.0	1.1	0.0	1.1	0.0	3.9	509.2(3361)	10.0	4.0
2300	2.7	0.0	2.7	0.0	2.7	0.0	2.7	0.0	2.7	0.0	2.8	0.0	5.3	509.0(3342)	10.6	5.3
2305	3.2	0.0	3.2	0.0	3.2	0.0	3.0	0.0	2.9	0.0	2.6	0.0	6.4	509.7(3332)	10.0	6.7
2310	1.0	0.0	1.3	0.0	.6	0.0	.2	0.0	-.2	0.0	-.5	0.0	5.5	510.2(3322)	9.7	5.0
2315	-.3	0.0	-.1	0.0	-.4	0.0	-.4	0.0	-.3	0.0	-.3	0.0	5.9	510.2(3312)	10.8	5.8
2320	2.2	0.0	2.2	0.0	2.2	0.0	2.3	0.0	2.4	0.0	2.5	0.0	8.3	510.0(3301)	12.2	7.4
2325	2.1	0.0	2.1	0.0	2.0	0.0	1.9	0.0	1.7	0.0	1.6	0.0	7.5	509.6(2462)	13.7	4.5
2330	-.9	0.0	-.8	0.0	-1.0	0.0	-1.1	0.0	-1.1	0.0	-1.0	0.0	4.7	509.3(2451)	13.8	2.3
2335	-1.9	0.0	-2.1	0.0	-1.7	0.0	-1.5	0.0	-1.3	0.0	-1.1	0.0	3.0	508.7(2432)	13.3	1.5
2340	-1.1	0.0	-1.2	0.0	-.8	0.0	-.5	0.0	-.3	0.0	-.1	0.0	2.7	508.4(2421)	13.6	1.5
2345	-.5	0.0	-.5	0.0	-.4	0.0	-.4	0.0	-.5	0.0	-.5	0.0	2.7	508.8(2402)	14.0	1.4
2350	1.3	0.0	1.3	0.0	1.2	0.0	1.0	0.0	.9	0.0	.8	0.0	3.6	507.9(2382)	13.5	2.6
2355	4.8	0.0	4.9	0.0	4.7	0.0	4.8	0.0	4.8	0.0	4.8	0.0	5.5	505.8(2371)	13.1	4.5
0	5.0	0.0	5.2	0.0	4.8	0.0	4.5	0.0	4.2	0.0	3.8	0.0	5.0	504.9(2352)	13.1	3.0
5	1.4	0.0	1.8	0.0	.9	0.0	.4	0.0	-.1	0.0	-.4	0.0	2.7	504.5(2341)	13.5	.8
10	.8	0.0	1.0	0.0	.7	0.0	.7	0.0	.6	0.0	.6	0.0	3.9	504.3(2322)	13.8	3.2
MEAN	.9	0.0	1.0	0.0	.9	0.0	.8	0.0	.8	0.0	.8	0.0	4.8	508.6	11.6	4.0
DEV	1.7	0.0	1.8	0.0	1.7	0.0	1.6	0.0	1.5	0.0	1.5	0.0	1.7		1.7	1.9
RMS	2.0	0.0	2.1	0.0	1.9	0.0	1.9	0.0	1.8	0.0	1.8	0.0				
CORR L		0.00(SLOPE= 0.00)											.33	0.00		.29
CORR A													0.00	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	2	3	5	7	2	3	0	2	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 85 BAFFIN CRUISE,OCT 1963

TRACK-133 KNOTS 184 DEGS WIND- 23 KNOTS 246 DEGS ACC- VERTICAL= 10 KMGL SURGE= KMGL SWAY= KMGL
LACOSTE NORMAL. OCT 26
ASKANIA NORMAL. SERVO ON
ACC DATA INCOMPLETE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2100	4.0	-3.7	4.0	-3.7	3.9	-3.7	3.7	-3.7	3.5	-3.7	3.3	-3.7	-3.0	504.4(2332)	13.3	182.7
2105	3.7	-3.1	3.9	-3.1	3.5	-3.1	3.1	-3.0	3.0	-3.0	3.1	-2.9	-2.1	504.7(2351)	13.4	182.0
2110	3.5	-2.7	3.3	-2.7	4.0	-2.6	4.5	-2.4	5.2	-2.1	5.9	-1.8	-1.4	505.3(2362)	13.4	181.4
2115	4.8	-3.1	4.2	-3.5	5.3	-2.7	5.8	-2.2	6.1	-1.7	6.4	-1.2	-1.0	507.3(2381)	13.6	181.3
2120	5.2	-2.0	5.1	-2.5	5.3	-1.6	5.3	-1.3	5.2	-1.1	5.0	-.9	-.9	508.7(2401)	13.5	181.3
2125	4.7	-.8	5.1	-.8	4.5	-.8	4.3	-.9	4.3	-1.0	4.4	-1.1	-.9	508.7(2412)	13.4	181.2
2130	4.6	-1.1	4.5	-1.0	4.6	-1.3	4.5	-1.3	4.6	-1.2	4.9	-1.0	-.8	508.6(2431)	13.4	181.2
2135	3.9	-2.0	3.6	-2.3	4.3	-1.5	4.7	-1.1	5.1	-.5	5.5	0.0	-1.7	509.1(2442)	13.2	182.2
2140	3.8	-1.4	3.4	-2.1	4.4	-.7	5.0	-.1	5.5	.4	5.8	.9	-3.4	509.5(2461)	13.3	183.7
2145	4.2	-.7	3.8	-1.1	4.7	-.4	5.0	-.1	5.3	.1	5.4	.3	-5.0	509.9(2472)	13.3	184.9
2150	3.5	-1.5	3.5	-1.6	3.4	-1.4	3.2	-1.4	3.1	-1.5	3.1	-1.5	-6.5	510.2(3311)	13.5	186.1
2155	1.9	-2.6	2.1	-2.5	1.6	-2.7	1.4	-2.8	1.2	-2.8	1.2	-2.8	-7.5	510.2(3322)	13.7	186.6
2200	3.4	-.7	3.3	-.7	3.6	-.7	3.9	-.6	4.1	-.6	4.2	-.6	-6.5	509.2(3341)	13.4	185.2
2205	5.9	1.0	5.8	1.0	5.9	1.1	5.9	1.0	5.9	1.0	6.0	1.0	-4.9	509.2(3352)	13.0	184.1
2210	6.1	.8	5.9	.9	6.2	.8	6.2	.8	6.4	.7	6.6	.7	-4.8	509.3(3371)	13.2	184.6
2215	5.0	-1.0	4.9	-1.0	5.1	-1.0	5.2	-.9	5.4	-.9	5.3	-.8	-6.5	509.4(3381)	13.4	186.3
2220	3.8	-2.1	3.9	-2.2	3.7	-2.0	3.6	-2.0	3.4	-1.9	3.2	-1.9	-7.9	509.3(3392)	13.1	187.2
2225	3.1	-1.9	3.2	-1.9	3.1	-1.9	3.0	-1.9	3.0	-2.1	2.9	-2.4	-7.8	509.4(3411)	12.9	186.8
2230	3.6	-1.9	3.7	-1.6	3.5	-2.3	3.3	-2.7	3.2	-3.1	3.1	-3.6	-6.1	510.4(3422)	13.2	184.8
2235	5.9	-1.2	6.0	-.7	5.8	-1.7	5.7	-2.1	5.6	-2.6	5.4	-2.9	-3.4	510.1(3432)	13.9	182.5
2240	7.8	-.7	8.0	-.3	7.6	-1.0	7.4	-1.3	7.3	-1.6	7.2	-1.8	-1.7	509.2(3451)	13.8	181.6
2245	7.9	-1.2	8.0	-1.0	7.8	-1.3	7.7	-1.5	7.6	-1.5	7.6	-1.5	-2.4	507.8(3462)	13.3	182.8
2250	5.3	-3.8	5.3	-3.8	5.3	-3.7	5.4	-3.6	5.7	-3.5	6.0	-3.5	-4.8	507.6(3472)	13.1	185.2
2255	0.0	-4.3	0.0	-4.2	0.0	-4.3	0.0	-4.4	0.0	-4.5	0.0	-4.5	-5.4	507.8(4311)	13.0	184.7
MEAN	4.5	-1.7	4.5	-1.7	4.6	-1.6	4.6	-1.6	4.7	-1.6	4.8	-1.5	-4.0	508.5	13.3	183.7
DEV	1.4	1.2	1.4	1.3	1.3	1.2	1.4	1.3	1.5	1.3	1.5	1.4	2.3		.2	1.9
RMS	4.8	2.2	4.8	2.2	4.9	2.1	4.9	2.1	5.0	2.1	5.1	2.2				
CORR L		.41(SLOPE=	.48)										.40	0.00		-.38
CORR A													-.05	0.00		.03

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	9	6	3	0	2	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	3	4	5	10	0	2	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 86 BAFFIN CRUISE,OCT 1963

TRACK-133 KNOTS 004 DEGS WIND- 20 KNOTS 264 DEGS ACC- VERTICAL= 05 KMGL SURGE= KMGL SWAY= KMGL
LACOSTE NORMAL. OCT 26
ASKANIA NORMAL. SERVO ON
ACC DATA INCOMPLETE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
0	6.3	-3.6	7.7	-2.9	4.6	-4.3	2.9	-4.9	1.3	-5.4	-.3	-5.9	7.9	507.8(4311)	13.2	6.1
5	-.6	-4.8	1.0	-4.6	-2.0	-5.0	-3.2	-5.1	-4.2	-5.0	-5.0	-4.9	9.0	507.6(3481)	13.0	7.1
10	-6.2	-5.4	-5.7	-5.6	-6.8	-5.2	-7.5	-5.2	-8.4	-5.3	-9.2	-5.1	8.5	507.8(3462)	13.5	5.7
15	-11.3	-6.5	-11.1	-7.0	-10.8	-5.7	-9.8	-4.7	-8.3	-3.6	-6.5	-2.4	7.6	508.7(3452)	13.5	5.1
20	-5.8	-2.6	-7.9	-3.8	-3.5	-1.3	-1.0	-.2	1.7	.8	4.2	1.4	7.4	509.9(3441)	13.6	5.2
25	5.0	.5	3.2	.4	6.0	.3	6.5	-.2	6.6	-.8	6.5	-1.3	6.9	510.4(3422)	13.5	4.6
30	4.4	-3.8	4.5	-3.3	4.4	-4.3	4.4	-4.7	4.3	-5.0	4.2	-5.3	4.6	510.1(3412)	13.3	2.2
35	2.2	-7.5	2.2	-7.3	2.2	-7.7	2.2	-7.9	2.3	-8.1	2.3	-8.3	1.6	509.2(3401)	13.4	0.0
40	1.6	-9.2	1.6	-9.0	1.5	-9.4	1.4	-9.6	1.2	-9.9	1.0	-10.1	1.1	509.4(3382)	13.5	.5
45	1.6	-9.4	1.9	-9.2	1.4	-9.5	1.3	-9.6	1.2	-9.6	1.1	-9.6	1.9	509.3(3372)	13.6	1.1
50	.3	-10.3	.4	-10.3	.3	-10.3	.2	-10.3	.1	-10.3	0.0	-10.4	1.1	509.2(3361)	13.9	-.1
55	-.7	-10.9	-.5	-10.9	-.9	-11.0	-1.2	-11.2	-1.5	-11.4	-2.0	-11.6	.5	509.0(3342)	13.0	-.1
100	2.5	-6.8	3.0	-6.6	2.0	-7.0	1.4	-7.2	.9	-7.2	.4	-7.3	6.5	510.1(3331)	12.4	7.6
105	7.1	-.2	7.4	-.3	6.8	-.2	6.5	-.1	6.3	0.0	6.3	.2	13.7	510.2(3312)	13.6	11.6
110	0.0	4.9	0.0	4.7	0.0	5.1	0.0	5.3	0.0	5.5	0.0	5.8	18.0	510.0(3301)	13.4	14.6
115	0.0	8.0	0.0	7.8	0.0	8.1	0.0	8.2	0.0	8.3	0.0	8.3	19.5	509.6(2462)	13.1	15.4
120	0.0	1.3	0.0	1.2	0.0	1.4	0.0	1.5	0.0	1.6	0.0	1.7	12.1	509.3(2451)	13.1	6.2
MEAN	.4	-3.9	.5	-3.9	.3	-3.8	.2	-3.8	.2	-3.8	.2	-3.8	7.5	509.2	13.3	5.4
DEV	4.9	5.2	5.2	5.1	4.7	5.2	4.5	5.3	4.4	5.5	4.4	5.6	5.5		.3	4.6
RMS	5.0	6.5	5.2	6.5	4.7	6.6	4.5	6.6	4.4	6.7	4.5	6.8				
CORR L		.26(SLOPE= .38)											.01	0.00		.09
CORR A													.92	0.00		.86

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	1	0	0	0	0	2	0	0	0	0	2	1	0	3	1	1	1	1	1	0	0	0	0
NUMBER ASKANIA	1	1	2	0	2	1	2	2	1	0	0	1	2	0	0	0	1	0	0	1	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 87 BAFFIN CRUISE,OCT 1963

TRACK-133 KNOTS 184 DEGS WIND- KNOTS DEGS ACC- VERTICAL= 07 KMGL SURGE= 03 KMGL SWAY= 04 KMGL
LACOSTE NORMAL.
ASKANIA NORMAL.
ACC DATA INCOMPLETE

OCT 27
SERVO ON

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
210	3.0	-2.2	3.0	-2.2	3.0	-2.1	3.1	-2.0	3.2	-1.9	3.3	-1.7	-4.6	504.4(2332)	13.4	184.1
215	3.1	-1.7	3.1	-1.9	3.2	-1.6	3.3	-1.4	3.4	-1.3	3.4	-1.2	-4.5	504.7(2351)	13.3	184.1
220	3.2	-1.3	3.3	-1.3	3.1	-1.4	2.9	-1.5	2.7	-1.8	2.4	-2.0	-3.5	505.8(2371)	13.3	183.0
225	2.2	-2.3	2.4	-2.0	2.3	-2.6	2.4	-2.8	2.5	-3.0	2.9	-3.1	-1.5	507.9(2382)	13.5	181.1
230	4.0	-2.6	3.3	-2.7	4.7	-2.4	5.5	-2.2	6.1	-2.1	6.6	-2.0	-.2	508.7(2401)	13.8	180.6
235	8.0	-.7	7.7	-.9	8.2	-.7	8.4	-.7	8.5	-.7	8.4	-.7	.8	508.7(2412)	13.9	179.6
240	8.0	-.8	8.4	-.7	7.5	-.8	7.1	-.8	6.9	-.7	6.8	-.6	.6	508.6(2431)	13.5	180.2
245	4.5	-2.7	4.5	-2.9	4.5	-2.5	4.5	-2.2	4.4	-1.9	4.6	-1.5	-1.0	509.1(2442)	13.3	181.9
250	3.0	-3.1	2.7	-3.4	3.2	-2.8	3.5	-2.6	3.6	-2.4	3.8	-2.2	-2.5	509.5(2461)	13.5	182.9
255	3.5	-2.4	3.4	-2.6	3.7	-2.3	4.0	-2.1	4.4	-1.9	4.9	-1.7	-2.6	509.9(2472)	13.3	182.5
300	5.9	-.8	5.5	-1.1	6.2	-.5	6.4	-.2	6.5	.2	6.7	.7	-1.6	510.2(3311)	13.4	181.5
305	6.4	.5	6.1	.1	6.6	.9	6.7	1.2	6.7	1.4	6.6	1.6	-2.3	510.2(3322)	13.2	182.7
310	5.7	1.0	5.8	.8	5.9	1.1	6.2	1.1	6.6	1.0	6.8	.9	-4.0	509.2(3341)	13.0	184.3
315	6.4	.1	6.2	.3	6.3	-.2	6.1	-.4	5.8	-.7	5.4	-1.0	-4.7	509.2(3352)	13.5	184.2
320	5.1	-1.3	5.5	-.9	4.6	-1.6	4.1	-1.7	3.6	-1.7	3.2	-1.7	-4.5	509.3(3371)	13.7	184.0
325	1.6	-2.9	1.9	-3.0	1.5	-2.6	1.6	-2.3	1.7	-2.0	1.7	-1.7	-5.7	509.4(3382)	13.8	185.4
330	.7	-2.4	.8	-2.6	.6	-2.2	.5	-2.1	.6	-2.2	.7	-2.3	-6.6	509.3(3392)	13.0	186.0
335	2.3	-1.1	2.2	-.8	2.1	-1.4	1.9	-1.8	1.9	-2.2	2.1	-2.5	-5.0	509.4(3411)	13.0	183.9
340	2.7	-2.4	2.5	-2.1	2.8	-2.6	2.7	-2.8	2.5	-3.0	2.2	-3.1	-3.7	510.4(3422)	13.3	183.3
345	2.6	-2.3	3.0	-2.3	2.4	-2.4	2.2	-2.5	1.8	-2.6	1.4	-2.7	-3.2	510.1(3432)	13.5	182.9
350	2.3	-1.7	2.6	-1.5	2.1	-1.9	1.9	-2.1	1.6	-2.3	1.4	-2.5	-2.9	509.2(3451)	13.5	182.7
355	1.7	-2.2	1.9	-2.0	1.5	-2.5	1.4	-2.6	1.5	-2.6	1.7	-2.4	-3.5	508.1(3461)	12.9	183.6
400	1.1	-2.9	.8	-3.3	1.4	-2.4	1.7	-1.8	2.2	-1.1	2.9	-.4	-4.9	507.6(3472)	13.3	184.9
405	2.1	-1.3	1.3	-2.0	3.0	-.5	3.8	.2	4.6	.8	5.2	1.3	-6.3	507.7(4302)	13.6	185.8
410	4.8	.7	4.3	.4	4.8	1.0	4.8	1.3	4.8	1.5	4.8	1.7	-6.5	508.5(4321)	14.0	185.4
MEAN	3.7	-1.5	3.6	-1.6	3.8	-1.4	3.8	-1.3	3.9	-1.3	3.9	-1.2	-3.3	508.6	13.4	183.2
DEV	2.0	1.1	2.0	1.1	2.0	1.1	2.0	1.2	2.0	1.3	2.0	1.4	2.0		.2	1.6
RMS	4.3	1.9	4.2	2.0	4.3	1.9	4.4	1.9	4.4	1.9	4.5	1.9				
CORR L		.67(SLOPE= 1.17)											.56	0.00		-.55
CORR A													-.05	0.00		.02

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	2	6	6	2	3	4	0	2	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	5	9	7	1	3	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 88 BAFFIN CRUISE,OCT 1963

TRACK-132 KNOTS 004 DEGS WIND- 16 KNOTS 261 DEGS ACC- VERTICAL= KMGL SURGE= KMGL SWAY= KMGL
LACOSTE NORMAL.
ASKANIA NORMAL.
ACC DATA INCOMPLETE

OCT 27
SERVO ON

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
515	2.3	-8.9	2.3	-8.4	1.7	-9.4	1.3	-9.7	1.1	-9.8	1.0	-9.8	4.5	507.6(3472)	13.3	3.4
520	1.7	-8.8	1.8	-9.0	1.5	-8.4	1.3	-7.8	1.2	-7.0	1.0	-6.1	5.8	508.1(3461)	13.2	4.4
525	.5	-5.7	.5	-6.6	.5	-4.7	.6	-3.8	.6	-3.0	.6	-2.1	6.5	509.2(3451)	13.0	4.8
530	-.7	-2.7	-.8	-3.5	-.5	-2.0	-.2	-1.5	.2	-1.0	.5	-.6	5.9	510.1(3432)	13.0	3.9
535	-.8	-1.9	-1.2	-2.3	-.4	-1.5	-.1	-1.3	.1	-1.3	.1	-1.5	4.5	510.4(3422)	13.4	2.5
540	1.3	-.7	1.4	-.2	1.2	-1.2	.9	-1.8	.7	-2.2	.5	-2.6	4.9	509.4(3411)	13.5	3.6
545	1.1	-2.3	1.2	-1.9	1.2	-2.7	1.3	-2.9	1.5	-2.9	1.7	-2.9	5.4	509.3(3392)	13.1	3.9
550	1.2	-3.5	1.0	-3.6	1.4	-3.4	1.6	-3.3	1.8	-3.3	1.8	-3.5	4.9	509.4(3382)	12.9	3.2
555	2.4	-3.1	2.6	-2.7	2.0	-3.5	1.6	-4.0	1.1	-4.5	.6	-4.9	5.5	509.3(3371)	12.9	4.3
600	1.3	-4.1	1.8	-3.7	.9	-4.5	.5	-4.9	0.0	-5.3	-.5	-5.6	6.6	509.2(3352)	13.1	5.0
605	0.0	-4.9	.4	-4.7	-.4	-5.0	-.7	-5.1	-.9	-5.0	-1.0	-4.8	7.5	509.2(3341)	13.2	5.7
610	-2.1	-5.6	-2.1	-5.9	-2.0	-5.1	-1.8	-4.6	-1.5	-4.0	-1.2	-3.5	7.4	510.2(3322)	13.2	5.2
615	-1.4	-3.7	-1.7	-4.0	-1.2	-3.4	-1.1	-3.3	-1.1	-3.2	-1.2	-3.4	7.0	510.2(3311)	13.3	4.8
620	-.7	-3.0	-.6	-2.8	-.8	-3.2	-1.0	-3.4	-1.1	-3.7	-1.2	-4.0	7.2	509.9(2472)	13.3	5.3
625	-.8	-3.6	-.6	-3.4	-.9	-3.7	-.8	-3.8	-.7	-3.8	-.7	-3.7	7.4	509.5(2461)	13.0	5.5
630	-.6	-3.7	-.7	-3.7	-.5	-3.7	-.5	-3.6	-.4	-3.4	-.3	-3.2	7.1	509.1(2442)	13.1	4.9
635	-.5	-3.3	-.6	-3.5	-.4	-3.1	-.5	-3.0	-.5	-3.0	-.6	-3.1	6.3	508.6(2431)	13.3	4.2
640	-.8	-3.3	-.6	-3.1	-.9	-3.5	-1.1	-3.8	-1.3	-4.2	-1.5	-4.6	6.3	508.7(2412)	13.2	4.6
645	-1.2	-4.4	-1.0	-4.1	-1.4	-4.7	-1.4	-4.7	-1.3	-4.4	-1.1	-4.0	6.9	508.7(2401)	13.1	5.1
650	-1.1	-3.8	-1.5	-4.4	-.8	-3.3	-.4	-2.7	-.1	-2.2	.2	-1.8	5.7	507.9(2382)	13.1	3.4
655	1.2	-.7	.9	-1.1	1.5	-.5	1.6	-.5	1.7	-.7	1.7	-1.1	4.3	505.8(2371)	14.4	2.2
MEAN	.1	-3.8	.1	-3.9	0.0	-3.8	0.0	-3.7	0.0	-3.7	0.0	-3.6	6.0	509.0	13.2	4.2
DEV	1.2	2.0	1.3	2.0	1.1	2.0	1.0	2.0	1.0	1.9	1.0	1.9	1.0		.3	.9
RMS	1.3	4.4	1.4	4.4	1.2	4.3	1.1	4.3	1.0	4.2	1.0	4.1				
CORR L		-.17(SLOPE= -.10)											-.60	0.00		-.35
CORR A													-.19	0.00		-.32

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	1	9	2	6	3	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	2	0	0	2	1	6	6	2	2	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 89 BAFFIN CRUISE,OCT 1963

TRACK-133 KNOTS 184 DEGS WIND- 19 KNOTS 250 DEGS ACC- VERTICAL= 25 KMGL SURGE= 04 KMGL SWAY= 11 KMGL
LACOSTE NORMAL.
ASKANIA NORMAL.
ACC DATA INCOMPLETE

OCT 27
SERVO OFF
CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
815	6.8	-5.0	6.8	-5.0	7.0	-4.7	7.1	-4.4	7.2	-4.1	7.3	-3.9	-1.9	504.9(2352)	13.3	182.1
820	6.8	-4.4	6.5	-4.7	6.9	-4.1	7.1	-3.8	7.4	-3.6	7.7	-3.5	-1.8	505.8(2371)	13.4	181.9
825	6.3	-5.0	6.0	-5.2	6.6	-4.9	7.0	-4.9	7.5	-4.9	7.8	-4.9	-1.4	507.9(2382)	13.4	181.5
830	8.0	-4.7	8.0	-4.7	7.8	-4.7	7.7	-4.7	7.5	-4.7	7.3	-4.6	-.5	508.7(2401)	13.6	180.6
835	7.5	-4.3	7.6	-4.3	7.2	-4.2	6.9	-4.1	6.7	-4.0	6.7	-3.7	-.2	508.7(2412)	13.7	180.7
840	5.4	-4.9	5.2	-5.2	5.8	-4.5	6.2	-4.1	6.7	-3.7	7.3	-3.2	-1.8	508.6(2431)	13.6	182.5
845	4.7	-6.0	4.1	-6.4	5.4	-5.5	6.0	-5.1	6.5	-4.7	6.6	-4.4	-4.2	509.3(2451)	13.4	184.5
850	5.2	-5.5	5.3	-5.7	5.0	-5.2	4.7	-5.0	4.5	-4.8	4.4	-4.6	-5.2	509.6(2462)	13.4	184.7
855	3.6	-5.2	3.7	-5.3	3.7	-5.0	3.7	-4.8	3.8	-4.7	3.9	-4.5	-5.6	510.0(2481)	13.4	185.0
900	3.5	-4.9	3.4	-5.0	3.5	-4.8	3.6	-4.8	3.5	-4.8	3.4	-4.8	-5.8	510.2(3312)	13.3	185.2
905	3.4	-4.6	3.6	-4.6	3.3	-4.7	3.1	-4.7	3.0	-4.8	3.0	-4.8	-5.8	510.1(3331)	13.4	185.1
910	4.3	-3.6	4.2	-3.6	4.5	-3.6	4.6	-3.7	4.6	-3.7	4.6	-3.7	-5.7	509.0(3342)	13.3	185.0
915	4.2	-4.0	4.2	-4.1	4.3	-4.0	4.5	-4.0	4.7	-4.0	4.8	-4.0	-5.8	509.2(3361)	13.3	185.2
920	4.7	-4.2	4.7	-4.1	4.7	-4.3	4.7	-4.3	4.8	-4.4	4.8	-4.4	-5.8	509.3(3371)	13.3	185.2
925	4.8	-4.5	4.8	-4.4	4.7	-4.5	4.5	-4.5	4.5	-4.5	4.5	-4.5	-5.7	509.4(3382)	13.3	185.1
930	4.6	-4.3	4.6	-4.4	4.6	-4.2	4.6	-4.1	4.6	-4.0	4.5	-4.0	-5.8	509.2(3401)	13.3	185.2
935	4.0	-4.6	3.8	-4.7	4.2	-4.6	4.4	-4.5	4.4	-4.5	4.3	-4.5	-5.7	510.1(3412)	13.7	184.9
940	4.4	-4.3	4.5	-4.3	4.2	-4.4	3.9	-4.5	3.6	-4.6	3.4	-4.7	-5.3	510.3(3431)	13.3	184.6
945	4.2	-3.9	4.4	-3.7	4.0	-4.1	3.7	-4.3	3.4	-4.5	3.0	-4.8	-4.7	509.9(3441)	13.0	184.1
950	4.1	-3.5	4.5	-3.3	3.9	-3.7	3.9	-3.9	3.9	-4.1	3.7	-4.2	-4.3	508.7(3452)	13.4	183.9
955	4.2	-3.7	4.4	-3.5	3.9	-3.7	3.6	-3.8	3.5	-3.8	3.7	-3.7	-4.6	507.8(3462)	13.3	184.3
1000	2.8	-4.7	2.5	-4.9	3.1	-4.5	3.4	-4.3	3.8	-4.1	4.1	-3.8	-6.0	507.6(3481)	13.2	185.8
1005	2.4	-5.3	2.3	-5.6	2.5	-5.0	2.6	-4.7	2.7	-4.4	2.7	-4.2	-7.5	507.8(4311)	13.2	187.0
MEAN	4.7	-4.5	4.7	-4.6	4.8	-4.4	4.8	-4.3	4.9	-4.3	4.9	-4.2	-4.3	508.7	13.3	184.0
DEV	1.4	.6	1.4	.7	1.4	.4	1.4	.3	1.5	.3	1.6	.4	1.9		.1	1.6
RMS	5.0	4.6	4.9	4.7	5.0	4.5	5.1	4.4	5.1	4.3	5.2	4.3				
CORR L		-.03(SLOPE= -.08)											.91	0.00		-.92
CORR A													-.05	0.00		-.01

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	9	6	1	2	2	0	0	0
NUMBER ASKANIA	0	0	0	0	0	1	11	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 90 BAFFIN CRUISE,OCT 1963

OCT 27

GRAVITY OBSERVATIONS WERE NOT MADE DURING THIS RUN.

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
9999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0(0)	0.0	0.0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 91 BAFFIN CRUISE,OCT 1963

TRACK-130 KNOTS 184 DEGS WIND- 26 KNOTS 243 DEGS ACC- VERTICAL= 13 KMGL SURGE= 03 KMGL SWAY= 07 KMGL
LACOSTE NORMAL. OCT 27
ASKANIA NORMAL. SERVO OFF
ACC DATA INCOMPLETE CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1535	-2.9	-4.2	-3.0	-4.3	-2.8	-4.0	-2.6	-3.8	-2.3	-3.6	-2.0	-3.4	-2.8	504.4(2332)	13.1	183.0
1540	-2.6	-4.2	-3.0	-4.4	-2.2	-3.9	-1.8	-3.7	-1.7	-3.4	-1.6	-3.2	-3.6	504.7(2351)	13.1	183.6
1545	-3.1	-4.7	-3.4	-5.0	-2.6	-4.4	-2.0	-4.1	-1.6	-3.8	-1.0	-3.5	-4.2	505.8(2371)	12.9	184.2
1550	-3.0	-5.8	-3.6	-6.1	-2.4	-5.5	-1.7	-5.2	-.9	-5.0	-.3	-4.9	-4.7	507.9(2382)	12.9	184.5
1555	.3	-4.5	0.0	-4.6	.2	-4.5	-.1	-4.6	-.4	-4.8	-.9	-4.9	-3.7	508.7(2401)	13.1	183.1
1600	.2	-3.5	.7	-3.3	-.3	-3.6	-.8	-3.8	-1.2	-3.9	-1.4	-4.0	-2.1	508.7(2412)	13.3	181.8
1605	-1.2	-3.6	-1.0	-3.6	-1.3	-3.6	-1.6	-3.6	-1.8	-3.5	-1.9	-3.4	-1.7	508.6(2431)	13.2	182.0
1610	-3.0	-4.3	-3.0	-4.5	-3.0	-4.2	-3.1	-4.1	-3.2	-3.9	-3.2	-3.8	-2.3	509.1(2442)	13.2	182.6
1615	-4.3	-4.9	-4.4	-5.0	-4.1	-4.7	-3.7	-4.6	-3.5	-4.4	-3.4	-4.3	-3.1	509.5(2461)	13.2	183.3
1620	-4.1	-5.0	-4.2	-5.1	-4.0	-4.8	-4.1	-4.6	-4.0	-4.4	-3.9	-4.2	-3.6	509.9(2472)	13.0	183.5
1625	-4.6	-4.8	-4.7	-5.0	-4.5	-4.6	-4.6	-4.5	-4.7	-4.3	-4.6	-4.1	-4.1	510.2(3311)	13.2	184.0
1630	-5.3	-4.7	-5.3	-4.8	-5.2	-4.6	-5.2	-4.5	-5.1	-4.5	-5.0	-4.5	-4.7	510.2(3322)	13.2	184.5
1635	-4.1	-3.7	-4.2	-3.7	-4.1	-3.7	-4.2	-3.7	-4.2	-3.8	-4.4	-3.8	-4.9	509.2(3341)	13.0	184.5
1640	-4.6	-3.7	-4.3	-3.7	-4.6	-3.7	-4.4	-3.7	-4.3	-3.7	-4.4	-3.7	-4.9	509.2(3352)	13.0	184.4
1645	-4.5	-3.7	-4.4	-3.7	-4.5	-3.6	-4.3	-3.6	-4.1	-3.5	-3.9	-3.5	-4.8	509.2(3362)	13.1	184.4
1650	-4.1	-3.7	-4.2	-3.8	-4.0	-3.7	-4.1	-3.6	-4.3	-3.6	-4.6	-3.6	-5.0	509.4(3381)	13.1	184.6
1655	-5.0	-3.7	-4.8	-3.8	-5.0	-3.7	-4.8	-3.6	-4.7	-3.5	-4.5	-3.5	-5.2	509.3(3392)	13.2	184.8
1700	-4.7	-3.7	-4.8	-3.8	-4.6	-3.6	-4.3	-3.5	-3.9	-3.4	-3.4	-3.3	-5.4	509.4(3411)	13.2	184.9
1705	-4.1	-4.3	-4.5	-4.4	-4.0	-4.3	-4.0	-4.3	-4.0	-4.3	-3.7	-4.3	-5.5	510.5(3421)	12.9	185.0
1710	-2.5	-3.6	-2.9	-3.5	-2.2	-3.8	-2.0	-4.0	-2.0	-4.2	-2.1	-4.5	-5.0	510.1(3432)	12.9	184.5
1715	-1.0	-3.5	-.9	-3.3	-1.3	-3.8	-1.8	-4.1	-2.3	-4.3	-3.0	-4.6	-4.3	509.6(3442)	12.9	183.9
1720	-1.6	-2.6	-.7	-2.3	-2.6	-2.7	-3.5	-2.9	-4.5	-3.1	-5.2	-3.2	-3.6	508.1(3461)	12.9	183.2
1725	-5.1	-2.6	-4.4	-2.4	-5.6	-2.7	-5.9	-2.8	-5.9	-2.8	-5.7	-2.9	-3.2	507.7(3471)	13.1	183.1
1730	-5.9	-3.3	-6.1	-3.3	-5.6	-3.3	-5.3	-3.2	-4.9	-3.2	-4.6	-3.2	-3.6	507.7(4302)	13.3	183.6
1735	-5.2	-3.9	-5.4	-4.0	-4.9	-3.8	-4.8	-3.7	-4.8	-3.6	-4.7	-3.5	-4.0	508.1(4312)	13.2	183.8
1740	-6.0	-4.7	-6.1	-4.9	-6.0	-4.6	-5.7	-4.4	-5.1	-4.2	-4.3	-4.1	-3.7	509.8(4331)	13.3	183.3
MEAN	-3.5	-4.0	-3.5	-4.0	-3.5	-3.9	-3.4	-3.9	-3.4	-3.8	-3.3	-3.8	-3.9	508.6	13.0	183.7
DEV	1.7	.7	1.7	.8	1.6	.6	1.5	.5	1.4	.5	1.4	.5	1.0		.1	.8
RMS	3.9	4.1	4.0	4.2	3.9	4.0	3.8	4.0	3.7	3.9	3.7	3.9				
CORR L		.09(SLOPE= .22)											.41	0.00		-.50
CORR A													.07	0.00		-.15

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	2	7	6	5	2	2	2	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	1	6	14	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 92 BAFFIN CRUISE, OCT 1963

TRACK-131 KNOTS 004 DEGS WIND- 20 KNOTS 243 DEGS ACC- VERTICAL= 08 KMGL SURGE= 03 KMGL SWAY= 06 KMGL
LACOSTE NORMAL. OCT 27
ASKANIA NORMAL. SERVO OFF

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1835	5.9	-9.4	5.8	-9.0	6.1	-9.6	6.3	-9.4	6.3	-8.9	6.2	-8.5	7.7	508.1(4312)	13.1	5.7
1840	6.5	-7.6	6.8	-7.9	6.0	-7.3	5.7	-6.9	5.6	-6.4	5.7	-5.9	7.9	507.7(4302)	13.3	5.8
1845	5.1	-5.9	5.2	-6.4	4.9	-5.5	4.9	-5.1	5.1	-4.8	5.3	-4.4	7.5	507.7(3471)	13.3	5.1
1850	4.5	-5.1	4.3	-5.4	4.9	-4.7	5.3	-4.4	5.6	-4.1	5.8	-3.8	6.9	508.1(3461)	13.2	4.8
1855	4.0	-5.5	3.8	-5.8	4.2	-5.2	4.3	-4.8	4.2	-4.4	4.3	-4.1	6.3	509.6(3442)	13.3	4.3
1900	3.0	-5.3	2.7	-5.7	3.4	-4.9	3.8	-4.6	4.3	-4.3	4.8	-4.0	5.3	510.1(3432)	13.2	3.3
1905	4.7	-4.7	4.0	-4.8	5.4	-4.6	6.1	-4.5	6.6	-4.5	7.0	-4.6	4.9	510.5(3421)	13.1	3.3
1910	9.1	-3.0	8.8	-2.8	9.2	-3.3	9.2	-3.6	8.9	-3.9	8.3	-4.2	5.3	509.2(3402)	13.1	3.9
1915	7.9	-4.4	8.4	-4.1	7.5	-4.6	7.0	-4.9	6.6	-5.1	6.2	-5.3	5.5	509.3(3392)	13.2	3.8
1920	5.0	-6.1	5.5	-6.0	4.7	-6.1	4.6	-6.1	4.6	-6.0	4.6	-6.0	4.9	509.4(3381)	13.3	3.1
1925	4.5	-5.9	4.7	-5.9	4.2	-5.9	4.1	-5.9	4.1	-5.9	4.1	-5.9	4.8	509.2(3362)	13.4	3.3
1930	6.3	-3.6	6.4	-3.6	5.9	-3.7	5.4	-3.7	5.0	-3.7	4.9	-3.7	7.1	509.1(3351)	13.2	6.0
1935	6.3	-2.4	6.2	-2.4	6.5	-2.4	6.7	-2.4	7.0	-2.3	7.2	-2.2	8.9	509.7(3332)	13.3	6.8
1940	5.7	-3.8	5.4	-4.0	6.1	-3.7	6.7	-3.5	7.3	-3.3	7.8	-3.1	7.8	510.3(3321)	13.4	4.9
1945	7.0	-4.1	6.7	-4.2	7.1	-3.9	7.0	-3.8	6.7	-3.7	6.4	-3.7	6.5	510.1(3302)	13.3	4.4
1950	6.2	-3.7	6.4	-3.7	6.0	-3.7	5.6	-3.8	5.2	-3.9	4.6	-4.1	6.2	509.8(2471)	13.1	4.4
1955	4.4	-3.9	4.9	-3.8	4.0	-4.1	3.6	-4.2	3.2	-4.3	2.8	-4.4	6.0	509.4(2452)	13.2	4.2
2000	3.9	-3.2	4.2	-3.0	3.6	-3.3	3.3	-3.3	3.0	-3.4	2.8	-3.5	6.9	508.9(2441)	13.1	5.4
2005	4.5	-1.7	4.6	-1.7	4.5	-1.7	4.7	-1.7	4.9	-1.6	5.3	-1.5	8.2	508.4(2422)	12.9	6.5
2010	4.2	-2.7	3.9	-2.9	4.5	-2.5	4.9	-2.2	5.5	-1.9	6.2	-1.6	7.2	508.8(2411)	13.0	4.7
2015	4.6	-3.5	4.0	-3.8	5.2	-3.2	5.7	-3.0	6.0	-2.8	6.4	-2.6	4.8	508.5(2392)	13.2	2.6
2020	6.6	-2.7	6.3	-2.7	7.0	-2.7	7.2	-2.7	7.2	-2.8	7.0	-2.9	3.5	507.3(2381)	12.9	2.1
2025	8.3	-1.4	8.7	-1.2	8.0	-1.5	7.7	-1.6	7.3	-1.7	6.9	-1.8	3.2	505.3(2362)	12.8	2.0
2030	7.4	-1.1	7.8	-.9	7.1	-1.2	6.9	-1.4	6.9	-1.6	7.0	-1.8	3.4	504.7(2351)	13.0	2.3
2035	8.1	-1.1	7.9	-.9	8.4	-1.3	8.6	-1.5	9.0	-1.7	9.5	-1.9	4.1	504.4(2332)	13.0	2.9
2040	10.6	-1.4	10.1	-1.3	10.8	-1.5	10.7	-1.6	10.4	-1.6	10.2	-1.6	4.4	504.1(2312)	12.9	3.0
MEAN	5.9	-3.9	5.9	-3.9	5.9	-3.9	6.0	-3.8	6.0	-3.7	6.0	-3.7	5.9	508.3	13.1	4.1
DEV	1.7	1.9	1.8	2.0	1.7	1.9	1.7	1.8	1.7	1.7	1.7	1.6	1.5		.1	1.3
RMS	6.2	4.4	6.2	4.5	6.2	4.4	6.2	4.3	6.3	4.2	6.3	4.1				
CORR L		.41(SLOPE= .37)											-.36	-.01		-.27
CORR A													-.37	0.00		-.29

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	7	5	4	3	1	0	1
NUMBER ASKANIA	0	0	1	1	0	3	4	6	5	2	4	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 93 BAFFIN CRUISE,OCT 1963

TRACK-133 KNOTS 184 DEGS WIND- 20 KNOTS 244 DEGS ACC- VERTICAL= 13 KMGL SURGE= 03 KMGL SWAY= 06 KMGL
LACOSTE NORMAL. OCT 27
ASKANIA NORMAL. SERVO OFF
ACC DATA INCOMPLETE CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2140	-6.7	-6.1	-6.7	-6.2	-6.6	-6.0	-6.2	-5.9	-5.7	-5.7	-5.5	-5.6	-4.8	504.6(2342)	13.3	184.6
2145	-5.1	-5.2	-5.3	-5.4	-4.8	-5.0	-4.6	-4.8	-4.4	-4.6	-4.2	-4.3	-4.1	505.0(2361)	13.5	183.4
2150	-5.8	-6.0	-6.1	-6.2	-5.4	-5.7	-5.1	-5.5	-4.9	-5.3	-4.4	-5.1	-3.7	507.3(2381)	13.5	183.5
2155	-3.2	-4.2	-3.7	-4.4	-2.9	-4.0	-2.6	-3.9	-2.3	-3.8	-2.0	-3.7	-1.9	508.5(2392)	13.6	181.3
2200	.2	-1.7	-.1	-1.8	.4	-1.7	.7	-1.7	1.0	-1.6	1.2	-1.6	.2	508.8(2411)	13.8	179.8
2205	1.4	-1.5	1.2	-1.6	1.5	-1.5	1.5	-1.4	1.4	-1.3	1.4	-1.2	0.0	508.4(2422)	13.5	181.0
2210	-2.2	-4.7	-2.1	-4.7	-2.2	-4.6	-2.1	-4.5	-2.3	-4.4	-2.6	-4.3	-3.1	508.9(2441)	13.4	184.0
2215	-6.3	-7.6	-6.0	-7.7	-6.5	-7.5	-6.6	-7.4	-6.5	-7.3	-6.5	-7.2	-5.9	509.4(2452)	12.9	186.0
2220	-5.4	-6.1	-5.5	-6.2	-5.3	-6.0	-5.4	-6.0	-5.4	-6.0	-5.2	-6.0	-4.6	509.8(2471)	13.0	183.4
2225	-2.3	-3.3	-2.5	-3.3	-2.1	-3.3	-2.1	-3.3	-2.1	-3.4	-2.3	-3.4	-1.6	510.1(3302)	13.1	181.1
2230	-1.8	-2.6	-1.5	-2.6	-2.3	-2.6	-2.5	-2.6	-2.5	-2.5	-2.3	-2.4	-.6	510.3(3321)	13.0	181.0
2235	-2.6	-3.0	-3.0	-3.1	-2.0	-2.8	-1.2	-2.6	-.4	-2.3	.4	-2.1	-1.9	509.7(3332)	13.4	182.6
2240	-.2	-3.4	-1.1	-3.6	.8	-3.1	1.4	-2.9	1.7	-2.6	1.9	-2.4	-4.0	509.1(3351)	13.8	184.2
2245	-.1	-4.4	-.3	-4.6	0.0	-4.2	.1	-4.0	.2	-3.9	.2	-3.7	-6.0	509.2(3362)	13.8	185.7
2250	-1.1	-5.1	-1.3	-5.2	-.9	-5.0	-.7	-4.9	-.4	-4.8	-.4	-4.8	-7.3	509.4(3381)	13.3	186.6
2255	-1.0	-5.2	-.8	-5.2	-1.3	-5.2	-1.6	-5.2	-1.6	-5.1	-1.7	-5.2	-7.7	509.4(3391)	12.8	186.9
2300	-1.3	-4.5	-1.1	-4.6	-1.5	-4.5	-1.5	-4.5	-1.4	-4.5	-1.3	-4.5	-7.4	509.2(3402)	13.1	186.3
2305	-1.4	-4.9	-1.7	-4.9	-1.0	-4.9	-.6	-4.9	-.5	-5.0	-.4	-5.1	-6.4	510.5(3421)	13.3	185.3
2310	.9	-3.8	1.0	-3.7	.8	-3.9	.7	-4.0	.6	-4.2	.5	-4.3	-5.2	510.3(3431)	13.4	184.3
2315	1.9	-2.9	2.1	-2.7	1.4	-3.1	.7	-3.3	0.0	-3.5	-.7	-3.7	-4.4	509.6(3442)	13.6	183.8
2320	.6	-2.1	1.0	-2.0	.3	-2.3	.2	-2.4	0.0	-2.5	-.3	-2.6	-4.1	508.1(3461)	13.3	183.8
2325	0.0	-1.9	.4	-1.9	-.3	-2.0	-.5	-2.0	-.4	-2.0	-.2	-1.9	-3.8	507.7(3471)	13.4	183.5
2330	-1.0	-2.8	-1.1	-2.8	-1.0	-2.7	-1.1	-2.6	-1.0	-2.5	-.5	-2.3	-4.8	507.7(4302)	13.6	184.7
2335	-2.4	-4.9	-3.3	-5.1	-2.4	-4.7	-2.4	-4.4	-2.4	-4.1	-2.4	-3.7	-7.2	508.1(4312)	13.3	187.0
MEAN	-1.8	-4.0	-1.9	-4.1	-1.8	-4.0	-1.7	-3.9	-1.6	-3.8	-1.5	-3.7	-4.1	508.7	13.3	183.9
DEV	2.4	1.5	2.4	1.6	2.3	1.5	2.3	1.4	2.2	1.4	2.2	1.4	2.2		.2	1.9
RMS	3.0	4.4	3.2	4.4	3.0	4.3	2.9	4.2	2.8	4.1	2.7	4.1				
CORR L		.78(SLOPE= 1.20)											.10	0.00		-.09
CORR A													.59	0.00		-.57

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	1	2	2	0	2	4	5	4	3	1	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	1	0	3	6	4	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 94 BAFFIN CRUISE,OCT 1963

TRACK-124 KNOTS 004 DEGS WIND- 08 KNOTS 280 DEGS ACC- VERTICAL= 05 KMGL SURGE= 05 KMGL SWAY= 07 KMGL
LACOSTE NORMAL. OCT 28
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.05CPS.SURGE=16.7SECS,.02CPS.SWAY= 4.0SECS,.22CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
55	-1.2	-1.1	-1.6	-1.0	-1.0	-1.2	-.8	-1.2	-.7	-1.3	-.6	-1.3	5.6	507.8(4311)	13.3	3.6
100	-1.3	-2.2	-1.5	-2.2	-1.2	-2.2	-1.2	-2.2	-1.2	-2.2	-1.2	-2.2	4.5	507.6(3481)	13.1	2.8
105	-1.9	-2.9	-1.9	-2.9	-1.7	-2.9	-1.5	-2.8	-1.3	-2.7	-1.1	-2.6	4.1	507.8(3462)	12.7	2.8
110	-2.6	-4.2	-2.8	-4.3	-2.3	-4.0	-2.1	-3.8	-1.9	-3.6	-1.6	-3.4	3.3	508.7(3452)	13.4	1.7
115	-2.1	-4.0	-2.4	-4.2	-1.9	-3.8	-1.7	-3.7	-1.6	-3.6	-1.5	-3.5	3.6	509.9(3441)	13.1	2.7
120	0.0	-2.0	0.0	-2.0	-.2	-2.0	-.5	-2.1	-.8	-2.1	-1.1	-2.2	5.6	510.3(3431)	13.0	4.6
125	-.4	-1.3	-.2	-1.3	-.6	-1.4	-.7	-1.4	-.8	-1.5	-.9	-1.6	6.2	510.1(3412)	13.5	4.2
130	0.0	-.8	0.0	-.7	.1	-.9	.2	-1.0	.2	-1.1	.2	-1.3	6.3	509.2(3401)	13.2	4.5
135	1.1	-.6	1.2	-.3	.8	-.8	.6	-1.0	.4	-1.2	.2	-1.3	7.4	509.4(3382)	13.2	5.8
140	.2	-1.3	.3	-1.2	0.0	-1.4	-.1	-1.4	-.2	-1.5	-.2	-1.5	7.4	509.3(3372)	13.3	5.1
145	-1.1	-2.4	-1.1	-2.4	-1.1	-2.5	-1.2	-2.6	-1.2	-2.6	-1.4	-2.7	6.5	509.2(3361)	13.1	4.3
150	-1.0	-2.2	-.8	-2.1	-1.1	-2.4	-1.3	-2.5	-1.4	-2.6	-1.5	-2.7	6.9	509.0(3342)	13.3	5.2
155	-2.0	-3.3	-2.0	-3.2	-2.0	-3.3	-1.9	-3.3	-1.7	-3.2	-1.5	-3.2	7.5	510.1(3331)	13.2	5.5
200	-1.7	-3.5	-1.9	-3.6	-1.5	-3.4	-1.3	-3.3	-1.2	-3.1	-1.0	-3.0	7.2	510.2(3312)	12.9	5.1
205	-.2	-2.2	-.3	-2.3	-.1	-2.2	0.0	-2.1	0.0	-2.1	0.0	-2.1	7.6	510.0(3301)	13.2	5.8
210	.5	-1.8	.4	-1.7	.5	-1.9	.4	-2.0	.4	-2.1	.4	-2.2	7.7	509.6(2462)	13.0	5.5
215	.4	-2.3	.4	-2.2	.3	-2.4	.2	-2.5	.2	-2.5	.2	-2.5	7.3	509.3(2451)	11.9	6.0
220	.1	-2.5	.1	-2.6	.3	-2.3	.5	-2.1	.7	-1.9	.9	-1.6	6.6	508.7(2432)	8.4	7.8
225	-1.1	-3.5	-1.3	-3.8	-.9	-3.1	-.5	-2.7	-.1	-2.4	.1	-2.1	4.3	508.6(2431)	5.7	5.9
230	-.9	-2.9	-1.0	-3.2	-.7	-2.7	-.4	-2.4	0.0	-2.2	.3	-2.0	3.0	508.4(2422)	9.1	2.8
235	0.0	-2.4	-.2	-2.5	.2	-2.3	.3	-2.2	.3	-2.1	.4	-2.0	2.9	508.8(2411)	12.8	1.8
240	-.1	-2.5	-.2	-2.6	0.0	-2.5	-.1	-2.5	-.2	-2.5	-.4	-2.5	2.1	508.5(2392)	12.8	.8
245	0.0	-2.0	.3	-1.8	-.3	-2.1	-.7	-2.3	-1.3	-2.6	-1.9	-2.9	1.5	507.3(2381)	13.1	.6
250	.4	-.4	1.0	0.0	-.2	-.8	-.9	-1.2	-1.6	-1.7	-2.3	-2.1	2.4	505.3(2362)	13.0	1.8
255	-.9	-.4	-.3	-.1	-1.4	-.7	-1.7	-1.0	-1.9	-1.2	-2.1	-1.4	3.8	504.7(2351)	13.2	2.8
300	-1.5	-.8	-1.3	-.6	-1.8	-1.0	-1.9	-1.2	-2.0	-1.3	-1.9	-1.4	4.4	504.4(2331)	13.3	3.0
MEAN	-.6	-2.1	-.6	-2.1	-.6	-2.1	-.7	-2.1	-.7	-2.1	-.7	-2.2	5.2	508.5	12.4	3.9
DEV	.9	1.0	1.0	1.1	.8	.9	.8	.8	.8	.7	.9	.6	1.9		1.8	1.7
RMS	1.1	2.4	1.2	2.4	1.1	2.3	1.1	2.3	1.1	2.3	1.2	2.3				
CORR L		.60(SLOPE= .53)											.18	0.00		.23
CORR A													.10	0.00		0.00

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	1	4	8	11	2	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	2	5	11	6	2	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 95 BAFFIN CRUISE,OCT 1963

TRACK-134 KNOTS 184 DEGS WIND- 05 KNOTS 206 DEGS ACC- VERTICAL= 13 KMGL SURGE= 04 KMGL SWAY= 08 KMGL
LACOSTE NORMAL.MINOR SURGE SPECTRA PEAK AT 3.6 SECS. OCT 28
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.04CPS.SURGE= 6.7SECS,.07CPS.SWAY= 4.5SECS,.17CPS. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
425	4.9	-3.9	4.6	-4.2	5.1	-3.6	5.3	-3.3	5.5	-3.0	5.8	-2.7	-.5	504.6(2342)	13.5	180.8
430	5.4	-3.2	4.9	-3.6	6.1	-2.9	6.8	-2.6	7.3	-2.3	7.9	-1.9	-1.1	505.0(2361)	13.3	181.6
435	4.8	-5.4	4.1	-5.7	5.6	-5.1	6.4	-4.7	7.1	-4.4	7.7	-4.1	-2.5	507.3(2381)	13.3	183.0
440	5.4	-6.3	5.2	-6.6	5.2	-6.1	4.9	-5.9	4.6	-5.7	4.2	-5.5	-3.9	508.5(2392)	13.3	184.0
445	3.5	-5.7	3.9	-5.8	2.9	-5.7	2.2	-5.7	1.3	-5.8	.5	-5.9	-3.9	508.8(2411)	13.2	183.5
450	1.6	-4.2	2.3	-4.1	1.2	-4.3	.9	-4.5	.6	-4.6	.3	-4.8	-2.5	508.4(2422)	13.4	182.1
455	1.0	-3.7	1.5	-3.6	.4	-3.9	0.0	-3.9	-.3	-4.0	-.4	-3.9	-.7	508.9(2441)	13.7	180.7
500	.8	-2.6	.9	-2.6	.8	-2.5	.8	-2.3	1.1	-2.2	1.6	-2.1	1.0	509.4(2452)	13.6	179.2
505	1.0	-3.2	.3	-3.4	1.7	-3.0	2.4	-2.8	3.0	-2.7	3.6	-2.5	.1	509.8(2471)	13.2	181.0
510	1.8	-4.8	1.1	-5.0	2.7	-4.6	3.7	-4.4	4.7	-4.1	5.7	-3.8	-2.0	510.1(3302)	13.4	182.8
515	5.5	-4.7	4.5	-5.0	6.6	-4.4	7.5	-4.1	8.3	-3.8	8.9	-3.5	-3.0	510.3(3321)	13.5	183.0
520	8.9	-3.7	8.4	-4.0	9.2	-3.5	9.4	-3.3	9.6	-3.1	9.8	-2.9	-4.2	509.7(3332)	13.3	184.3
525	9.2	-3.5	9.1	-3.6	9.3	-3.4	9.7	-3.3	10.3	-3.2	10.9	-3.2	-5.4	509.1(3351)	13.5	185.1
530	10.6	-4.1	9.9	-4.2	11.2	-4.1	11.9	-4.0	12.5	-3.9	12.9	-3.8	-6.3	509.2(3362)	13.2	185.8
535	12.4	-4.6	12.0	-4.7	12.6	-4.5	12.7	-4.4	12.6	-4.2	12.6	-4.1	-7.1	509.4(3381)	12.6	186.6
540	12.7	-4.0	12.6	-4.1	12.5	-3.9	11.9	-3.9	11.3	-3.9	10.7	-3.9	-7.1	509.4(3391)	13.0	186.2
545	11.7	-2.5	12.1	-2.5	11.5	-2.6	11.5	-2.6	11.6	-2.7	11.7	-2.7	-5.9	509.2(3402)	13.7	184.7
550	11.0	-3.3	11.1	-3.3	11.0	-3.4	11.2	-3.4	11.5	-3.4	11.9	-3.4	-5.1	510.5(3421)	13.8	184.4
555	12.8	-2.8	12.5	-2.8	12.8	-2.9	12.4	-2.9	11.7	-3.1	11.0	-3.2	-5.0	510.1(3432)	13.7	184.4
600	11.0	-2.6	11.7	-2.5	10.5	-2.8	10.2	-3.0	10.1	-3.3	9.8	-3.6	-4.7	509.6(3442)	13.8	184.1
605	11.0	-2.0	11.6	-1.8	10.7	-2.2	10.6	-2.5	10.8	-2.7	11.0	-2.9	-4.4	508.1(3461)	13.5	183.9
610	11.6	-2.5	11.5	-2.4	11.8	-2.6	12.0	-2.7	12.3	-2.8	12.6	-2.8	-4.4	507.6(3472)	13.2	184.1
615	12.5	-3.6	11.7	-3.7	13.4	-3.5	14.3	-3.4	15.3	-3.2	16.2	-3.0	-5.2	507.7(4302)	13.4	185.0
620	15.8	-4.2	14.9	-4.3	16.5	-4.0	16.7	-3.8	16.7	-3.7	16.7	-3.6	-5.7	508.5(4321)	13.4	185.1
MEAN	7.7	-3.7	7.6	-3.8	7.9	-3.7	8.1	-3.6	8.3	-3.5	8.4	-3.4	-3.7	508.7	13.3	183.5
DEV	4.5	1.0	4.5	1.1	4.5	.9	4.6	.9	4.6	.9	4.7	.9	2.2		.2	1.8
RMS	9.0	3.9	8.8	4.1	9.2	3.9	9.4	3.8	9.5	3.7	9.7	3.6				
CORR L		.29(SLOPE= 1.26)											-.86	0.00		.83
CORR A													.02	0.00		-.10

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	1	4	1	0	0	2	0	11
NUMBER ASKANIA	0	0	0	0	0	2	4	8	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 96 BAFFIN CRUISE,OCT 1963

TRACK-131 KNOTS 004 DEGS WIND- 07 KNOTS 191 DEGS ACC- VERTICAL= 02 KMGL SURGE= 05 KMGL SWAY= 05 KMGL
LACOSTE NORMAL. OCT 28
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.04CPS.SURGE=16.7SECS,.03CPS.SWAY= 7.7SECS,.13CPS. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
720	3.4	-.4	3.9	-.2	2.8	-.6	2.4	-.7	2.1	-.9	1.8	-1.0	6.5	507.8(4311)	13.2	4.6
725	1.5	-1.1	1.8	-1.0	1.4	-1.2	1.4	-1.2	1.5	-1.2	1.7	-1.2	6.3	507.6(3481)	13.0	4.5
730	1.7	-1.4	1.4	-1.5	2.0	-1.3	2.1	-1.2	2.1	-1.0	2.1	-.8	6.2	507.8(3462)	13.2	4.4
735	.7	-2.0	.7	-2.2	.8	-1.8	.9	-1.5	1.0	-1.2	1.1	-.9	5.8	508.7(3452)	13.1	3.9
740	-.8	-2.7	-1.0	-3.0	-.5	-2.4	-.1	-2.0	.5	-1.7	1.0	-1.4	4.8	509.9(3441)	12.9	3.1
745	.2	-2.3	-.2	-2.6	.5	-2.1	.8	-1.9	1.1	-1.7	1.3	-1.7	4.0	510.3(3431)	13.0	2.6
750	1.8	-1.4	1.6	-1.4	1.9	-1.4	1.8	-1.5	1.8	-1.6	1.7	-1.7	4.2	510.1(3412)	13.1	2.9
755	3.1	-.3	3.3	-.1	2.9	-.4	2.5	-.7	2.1	-.9	1.5	-1.2	4.9	509.2(3401)	13.1	3.6
800	1.9	-.5	2.4	-.3	1.4	-.8	1.0	-1.1	.5	-1.4	0.0	-1.8	6.0	509.4(3391)	13.1	4.6
805	.9	-.7	1.4	-.4	.5	-1.1	.3	-1.4	0.0	-1.7	-.1	-2.0	7.3	509.3(3372)	13.1	5.7
810	.5	-1.5	.6	-1.3	.5	-1.6	.4	-1.7	.4	-1.8	.4	-1.9	7.9	509.2(3361)	13.3	5.7
815	.6	-1.8	.5	-1.8	.7	-1.8	.8	-1.8	.8	-1.7	.9	-1.7	7.8	509.0(3342)	13.2	5.6
820	-.1	-2.6	-.1	-2.7	-.1	-2.6	-.1	-2.5	-.1	-2.5	-.1	-2.4	7.9	510.1(3331)	13.1	5.8
825	.2	-2.1	.2	-2.1	.2	-2.0	.1	-1.9	.1	-1.9	.2	-1.8	8.2	510.2(3312)	13.3	6.1
830	.5	-1.5	.5	-1.5	.6	-1.5	.6	-1.5	.6	-1.5	.5	-1.5	8.3	510.0(3301)	13.3	6.0
835	1.0	-1.0	1.0	-1.0	.9	-1.1	.8	-1.1	.7	-1.2	.6	-1.3	8.5	509.6(2462)	13.2	6.2
840	1.0	-.8	1.2	-.7	.8	-1.0	.7	-1.1	.6	-1.2	.4	-1.3	8.7	509.3(2451)	13.2	6.4
845	.8	-.9	.9	-.8	.8	-1.0	.8	-.9	.9	-.8	1.2	-.5	8.7	508.7(2432)	13.3	6.3
850	0.0	-1.9	-.5	-2.2	.5	-1.5	1.1	-1.0	1.7	-.5	2.4	0.0	6.6	508.4(2421)	13.1	4.0
855	-.4	-2.9	-1.0	-3.4	.1	-2.4	.6	-2.0	.8	-1.7	.9	-1.4	3.7	508.8(2402)	13.1	1.6
900	.6	-1.6	.6	-1.7	.5	-1.5	.3	-1.6	0.0	-1.7	-.3	-1.8	2.8	508.2(2391)	13.1	1.7
905	1.7	.3	2.0	.5	1.4	0.0	1.1	-.2	.8	-.5	.5	-.7	3.3	506.5(2372)	12.9	2.4
910	2.4	1.2	2.7	1.5	2.1	.9	1.8	.6	1.5	.3	1.2	.1	4.1	505.0(2361)	13.1	2.9
915	1.6	.6	1.8	.7	1.5	.4	1.4	.3	1.4	.2	1.4	.1	4.2	504.5(2341)	13.1	2.7
920	1.1	-.3	1.1	-.2	1.1	-.4	1.2	-.4	1.3	-.4	1.4	-.4	3.7	504.3(2322)	13.0	2.3
MEAN	1.0	-1.1	1.0	-1.1	1.0	-1.2	.9	-1.2	.9	-1.2	.9	-1.2	6.0	508.4	13.1	4.2
DEV	.9	1.0	1.1	1.1	.8	.8	.6	.7	.6	.6	.7	.6	1.8		.1	1.5
RMS	1.4	1.6	1.6	1.7	1.3	1.5	1.2	1.4	1.2	1.4	1.2	1.4				
CORR L		.77(SLOPE= .76)											-.16	0.00		-.07
CORR A													-.19	-.01		-.09

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	1	5	10	7	2	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	3	6	9	5	2	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 97 BAFFIN CRUISE,OCT 1963

TRACK-131 KNOTS 184 DEGS WIND- 08 KNOTS 195 DEGS ACC- VERTICAL= 11 KMGL SURGE= 04 KMGL SWAY= 07 KMGL
LACOSTE NORMAL. OCT 28
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.3SECS,WIDTH=.06CPS.SURGE= 7.2SECS,.04CPS.SWAY= 5.9SECS,.14CPS. CROSS. COUP. NEGLIGIBLE

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1025	3.0	-3.2	2.8	-3.1	3.2	-3.2	3.1	-3.1	3.0	-3.0	3.2	-2.8	-3.3	504.5(2341)	13.3	183.1
1030	2.8	-3.6	2.3	-3.7	3.5	-3.4	4.4	-3.2	5.2	-3.0	5.8	-2.8	-3.7	504.9(3512)	13.4	183.7
1035	4.8	-4.0	4.3	-4.3	5.2	-3.8	5.6	-3.5	6.1	-3.2	6.3	-2.9	-4.3	505.8(3512)	13.4	184.1
1040	3.4	-5.5	3.4	-5.8	3.2	-5.1	3.0	-4.8	3.0	-4.5	3.2	-4.2	-4.8	508.2(3512)	13.4	184.5
1045	2.9	-4.7	2.4	-5.0	3.4	-4.5	3.9	-4.3	4.3	-4.2	4.8	-4.1	-5.1	508.8(3512)	13.4	184.6
1050	6.1	-3.2	5.7	-3.2	6.4	-3.2	6.5	-3.3	6.4	-3.4	6.1	-3.5	-4.6	508.4(3512)	13.4	183.9
1055	6.2	-3.3	6.5	-3.1	5.8	-3.4	5.3	-3.6	4.7	-3.7	4.0	-3.8	-3.6	508.9(3512)	13.2	183.1
1100	3.7	-3.5	4.4	-3.4	3.2	-3.6	3.1	-3.6	3.1	-3.6	3.3	-3.5	-2.9	509.3(3512)	13.1	182.7
1105	3.3	-3.7	3.0	-3.8	3.7	-3.6	3.8	-3.4	3.9	-3.2	4.1	-3.1	-2.8	509.6(3512)	13.1	182.9
1110	3.4	-3.8	3.2	-4.0	3.4	-3.6	3.3	-3.4	3.3	-3.3	3.3	-3.1	-3.3	510.0(3512)	13.2	183.4
1115	2.5	-3.7	2.6	-3.8	2.4	-3.5	2.4	-3.4	2.5	-3.3	2.7	-3.2	-3.8	510.2(3512)	13.2	183.7
1120	2.6	-3.5	2.4	-3.5	2.9	-3.4	3.1	-3.4	3.2	-3.3	2.9	-3.3	-4.2	510.1(3512)	13.0	184.1
1125	3.6	-2.3	4.0	-2.2	3.3	-2.3	3.3	-2.4	3.4	-2.4	3.7	-2.5	-4.3	509.0(3512)	12.9	184.0
1130	4.2	-2.2	4.1	-2.1	4.0	-2.3	3.9	-2.4	4.1	-2.5	4.5	-2.5	-3.6	509.2(3512)	12.8	183.3
1135	5.3	-2.5	4.6	-2.4	6.0	-2.5	6.4	-2.5	6.4	-2.4	6.6	-2.3	-3.4	509.3(3521)	12.8	183.4
1140	6.3	-2.8	6.0	-2.9	7.0	-2.6	7.8	-2.5	8.3	-2.4	8.6	-2.3	-3.9	509.4(3521)	13.0	183.9
1145	8.6	-2.3	8.5	-2.4	8.6	-2.2	8.9	-2.1	9.3	-2.0	9.6	-2.0	-4.3	509.2(3521)	13.2	184.0
1150	9.3	-2.2	9.3	-2.3	9.0	-2.2	8.5	-2.2	8.0	-2.1	7.6	-2.0	-4.4	509.4(3521)	13.2	184.1
1155	5.8	-3.3	6.3	-3.3	5.2	-3.2	4.9	-3.2	4.6	-3.2	4.2	-3.2	-4.7	510.4(3521)	13.3	184.3
1200	4.2	-2.7	4.7	-2.7	3.9	-2.8	3.6	-2.9	3.6	-3.1	3.6	-3.3	-4.6	509.9(3521)	14.8	183.9
1205	5.4	-1.7	5.4	-1.5	5.3	-1.9	4.9	-2.1	4.4	-2.3	3.8	-2.5	-4.0	508.7(3521)	13.2	183.5
1210	4.8	-1.3	5.2	-1.1	4.4	-1.5	4.2	-1.7	4.2	-1.9	4.2	-2.0	-3.5	507.8(3521)	11.5	183.5
1215	4.3	-2.1	4.2	-2.0	4.4	-2.2	4.3	-2.2	4.3	-2.3	4.6	-2.3	-3.8	507.6(3521)	13.2	183.8
1220	4.2	-3.1	3.7	-3.2	4.8	-3.0	5.1	-2.9	5.2	-2.8	5.1	-2.6	-4.5	507.8(3521)	13.4	184.3
1225	3.8	0.0	3.9	0.0	3.9	0.0	4.2	0.0	4.2	0.0	4.2	0.0	-5.0	508.5(4321)	13.2	184.6
MEAN	4.5	-3.0	4.5	-3.1	4.6	-3.0	4.7	-3.0	4.7	-2.9	4.8	-2.9	-3.9	508.6	13.1	183.7
DEV	1.7	.9	1.7	1.0	1.6	.8	1.7	.7	1.7	.6	1.7	.6	.5		.5	.4
RMS	4.9	3.2	4.8	3.3	4.9	3.1	5.0	3.1	5.1	3.0	5.1	3.0				
CORR L		.46(SLOPE= .87)											-.16	0.00		.09
CORR A													.22	0.00		-.26

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	7	4	4	0	0	2	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	2	5	9	7	1	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 98 BAFFIN CRUISE,OCT 1963

TRACK-134 KNOTS 300 DEGS WIND- KNOTS DEGS ACC- VERTICAL= 06 KMGL SURGE= 05 KMGL SWAY= 06 KMGL
LACOSTE NORMAL. OCT 29
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.3SECS,WIDTH=.09CPS.SURGE= 7.2SECS,.12CPS.SWAY=12.5SECS,.09CPS. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
420	3.6	-.6	4.0	-.3	3.3	-1.1	3.0	-1.5	2.4	-1.9	1.7	-2.3	-65.7	513.0(3622)	13.7	296.5
425	4.1	.3	4.8	.8	3.7	-.1	3.6	-.5	3.7	-1.0	3.8	-1.4	-64.4	511.1(3592)	13.2	296.2
430	6.1	.5	6.1	.9	5.9	.1	5.9	-.2	6.4	-.5	7.1	-.8	-63.6	509.7(3562)	13.2	296.8
435	7.5	-1.4	6.7	-1.2	7.8	-1.7	7.6	-1.9	7.4	-2.2	7.3	-2.5	-64.3	509.3(3532)	13.5	296.9
440	10.3	.5	10.6	.8	9.9	.2	9.0	-.2	7.7	-.6	6.4	-1.1	-64.2	506.2(3501)	13.2	296.1
445	8.5	1.8	9.7	2.2	7.5	1.3	6.8	.9	6.3	.5	6.0	0.0	-63.3	503.8(2771)	13.1	296.4
450	6.3	0.0	6.4	.4	6.0	-.4	5.4	-.9	4.9	-1.3	4.3	-1.7	-64.7	502.0(2741)	13.7	297.1
455	3.6	-2.2	4.2	-1.8	3.2	-2.6	2.8	-3.1	2.4	-3.5	1.8	-3.9	-66.7	500.0(2702)	14.1	297.2
500	5.5	-.3	5.8	.1	6.1	-.7	7.0	-1.0	7.8	-1.3	8.3	-1.6	-64.6	498.2(2672)	13.2	297.2
505	11.1	.8	11.0	1.1	11.0	.6	11.1	.3	11.2	.1	10.8	-.1	-63.0	497.0(2642)	13.1	296.7
510	8.9	-1.3	9.8	-1.1	7.6	-1.5	5.6	-1.8	3.5	-2.0	2.1	-2.2	-64.3	496.8(2611)	13.6	297.6
515	-1.0	-4.4	0.0	-4.3	-1.8	-4.4	-2.8	-4.4	-3.9	-4.4	-4.7	-4.4	-64.8	498.4(2572)	13.8	299.4
520	-6.5	-5.5	-6.0	-5.7	-6.7	-5.2	-6.2	-4.9	-5.3	-4.5	-4.5	-4.1	-63.7	500.8(2542)	13.5	299.6
525	-5.6	-5.6	-6.4	-6.0	-4.8	-5.1	-3.9	-4.7	-3.0	-4.2	-2.0	-3.6	-62.3	504.1(2512)	13.2	299.4
530	-3.6	-5.7	-4.7	-6.3	-2.5	-5.1	-1.5	-4.4	-.6	-3.8	.2	-3.2	-62.2	506.9(1781)	13.3	299.2
MEAN	3.9	-1.5	4.1	-1.3	3.7	-1.7	3.5	-1.8	3.3	-2.0	3.2	-2.1	-64.1	503.8	13.4	297.4
DEV	5.4	2.4	5.6	2.7	5.1	2.1	4.8	1.8	4.6	1.6	4.4	1.3	1.1		.2	1.2
RMS	6.7	2.9	7.0	3.1	6.4	2.8	6.0	2.7	5.7	2.6	5.5	2.6				
CORR L		.90(SLOPE= 1.99)											-.24	0.00		-.87
CORR A													-.25	0.00		-.94

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	2	0	1	0	0	1	0	0	0	0	3	0	3	0	1	2	1	1
NUMBER ASKANIA	0	0	0	0	0	2	1	1	0	1	3	3	3	1	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 99 BAFFIN CRUISE,OCT 1963

TRACK-127 KNOTS 120 DEGS WIND- 33 KNOTS 105 DEGS ACC- VERTICAL= 16 KMGL SURGE= 04 KMGL SWAY= 10 KMGL
LACOSTE NORMAL. OCT 29
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.04CPS.SURGE= 6.7SECS,.08CPS.SWAY= 4.0SECS,.12CPS. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
635	0.0	.9	0.0	.9	0.0	.6	0.0	.2	0.0	-.2	0.0	-.6	61.3	505.0(2502)	12.9	119.9
640	-3.9	1.9	-3.3	2.3	-4.4	1.4	-4.5	1.0	-4.2	.5	-4.0	.1	61.2	501.9(2532)	12.7	119.3
645	-.6	2.9	-.8	3.3	-.4	2.4	-.2	2.0	0.0	1.6	.4	1.3	61.4	499.0(2562)	12.8	119.1
650	2.1	2.0	1.4	2.3	2.8	1.7	2.8	1.4	2.0	1.1	1.1	.9	60.7	497.3(2592)	12.6	119.5
655	.6	.9	1.3	1.1	.1	.8	-.1	.7	-.1	.6	-.2	.5	60.4	496.7(2622)	12.7	120.4
700	-.9	.1	-.5	.2	-1.5	.1	-1.6	0.0	-1.2	.1	-.3	.1	60.7	497.3(2652)	12.5	118.2
705	.4	-.1	-.5	-.1	1.1	0.0	1.4	.1	1.4	.3	1.4	.5	61.9	498.7(2682)	12.9	118.8
710	1.0	-.3	.4	-.5	1.9	0.0	2.6	.2	3.0	.5	2.9	.8	63.1	500.9(2721)	13.4	120.3
715	.6	-1.2	.6	-1.5	.8	-.8	1.3	-.5	1.8	-.2	2.2	.2	62.4	502.5(2751)	12.8	118.2
720	0.0	-1.9	-.3	-2.3	.3	-1.5	.6	-1.1	1.0	-.7	1.2	-.2	61.8	504.4(2781)	12.7	118.0
725	-2.8	-3.9	-2.9	-4.3	-2.7	-3.5	-2.6	-3.1	-2.8	-2.8	-2.7	-2.4	61.7	508.4(3511)	12.7	117.6
730	-2.7	-2.4	-3.0	-2.7	-2.5	-2.1	-2.3	-1.8	-2.1	-1.5	-1.7	-1.3	62.2	509.3(3532)	12.7	116.8
735	-2.1	-1.6	-2.2	-1.8	-2.3	-1.3	-2.3	-1.1	-2.0	-.9	-1.7	-.7	62.2	509.7(3562)	12.6	116.6
740	-3.5	-2.2	-3.4	-2.4	-3.7	-2.0	-3.7	-1.8	-3.5	-1.6	-3.3	-1.3	61.9	511.1(3592)	12.6	116.5
745	-3.9	-2.2	-4.4	-2.4	-3.8	-1.9	-4.0	-1.6	-3.8	-1.3	-3.4	-1.0	62.7	513.0(3622)	12.8	116.3
750	-5.5	-3.0	-5.8	-3.4	-5.5	-2.6	-5.5	-2.2	-5.5	-1.7	-5.5	-1.2	62.6	515.4(3652)	12.7	116.3
MEAN	-1.4	-.6	-1.5	-.7	-1.3	-.5	-1.2	-.4	-1.0	-.3	-.9	-.2	61.7	504.4	12.7	118.2
DEV	2.1	1.9	2.1	2.1	2.3	1.6	2.5	1.3	2.5	1.1	2.4	.9	.7		.1	1.3
RMS	2.6	2.0	2.6	2.3	2.7	1.7	2.8	1.5	2.7	1.2	2.6	1.0				
CORR L		.51(SLOPE= .57)											-.32	-.03		.73
CORR A													-.59	-.03		.76

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	1	2	3	1	2	2	3	1	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	1	1	5	1	3	2	2	1	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 100 BAFFIN CRUISE,OCT 1963

TRACK-134 KNOTS 300 DEGS WIND- 32 KNOTS 113 DEGS ACC- VERTICAL= 18 KMGL SURGE= 05 KMGL SWAY= 12 KMGL
LACOSTE RECORD VERY DISTURBED, BARELY READABLE. OCT 29
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.6SECS,WIDTH=.03CPS.SURGE=12.5SECS,.08CPS.SWAY= 7.1SECS,.02CPS. CROSS COUP MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
850	-15.2	0.0	-13.0	0.0	-17.3	0.0	-19.4	0.0	-21.2	0.0	-22.7	0.0	-61.6	512.5(3621)	13.4	300.8
855	-22.0	-1.4	-21.3	-1.4	-22.2	-1.7	-22.7	-1.8	-23.4	-2.0	-23.2	-2.1	-61.8	510.8(3591)	13.4	300.5
900	-21.8	-1.8	-22.9	-1.8	-20.8	-1.9	-19.5	-2.0	-17.9	-2.0	-16.7	-2.1	-62.7	509.6(3561)	13.4	299.0
905	-17.1	-3.2	-17.7	-3.1	-16.3	-3.3	-15.1	-3.4	-14.2	-3.7	-13.6	-4.0	-64.3	509.1(3522)	13.6	297.3
910	-10.0	-1.4	-10.7	-1.1	-9.7	-1.9	-10.2	-2.4	-11.8	-2.8	-14.4	-3.3	-64.8	505.6(2792)	13.5	296.9
915	-15.3	-1.9	-12.5	-1.4	-18.1	-2.4	-20.0	-2.9	-20.4	-3.4	-20.4	-3.7	-65.1	503.4(2762)	13.5	295.9
920	-19.8	-2.6	-18.9	-2.2	-20.8	-2.9	-21.2	-3.2	-20.4	-3.5	-18.8	-3.8	-65.6	501.5(2731)	13.4	294.3
925	-15.2	-2.3	-17.0	-2.0	-13.6	-2.7	-12.8	-3.0	-14.5	-3.3	-17.3	-3.7	-65.5	499.7(2701)	13.4	294.6
930	-17.1	-2.2	-15.4	-1.8	-17.9	-2.6	-18.4	-2.9	-18.6	-3.2	-18.5	-3.5	-65.5	497.8(2662)	13.5	295.4
935	-18.4	-2.8	-17.6	-2.6	-20.6	-2.9	-22.8	-3.1	-23.2	-3.3	-22.1	-3.5	-65.6	496.8(2632)	13.5	295.3
940	-21.3	-4.0	-22.5	-3.9	-20.4	-4.1	-19.9	-4.1	-20.5	-4.2	-21.8	-4.2	-65.7	497.1(2601)	13.5	295.2
945	-24.1	-6.2	-23.8	-6.2	-22.7	-6.0	-21.0	-5.8	-19.5	-5.6	-18.9	-5.3	-65.8	499.0(2562)	13.6	295.4
950	-21.9	-7.1	-21.1	-7.5	-23.7	-6.8	-25.7	-6.4	-28.1	-6.1	-29.9	-5.7	-65.1	501.9(2532)	13.4	296.3
955	-33.9	-8.6	-33.2	-9.0	-33.9	-8.1	-33.1	-7.6	-31.5	-7.1	-29.2	-6.6	-65.0	505.3(2501)	13.4	295.5
MEAN	-19.5	-3.5	-19.1	-3.3	-19.8	-3.6	-20.1	-3.7	-20.3	-3.8	-20.5	-3.9	-64.8	502.8	13.4	296.2
DEV	5.3	2.2	5.5	2.4	5.3	1.9	5.3	1.7	5.0	1.4	4.6	1.2	1.1		0.0	1.7
RMS	20.2	4.2	19.9	4.2	20.6	4.1	20.8	4.1	21.0	4.1	21.0	4.1				
CORR L		.77(SLOPE= 1.87)											.05	0.00		.11
CORR A													.34	.18		.31

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	1	0	1	1	0	1	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 101 BAFFIN CRUISE,OCT 1963

TRACK-094 KNOTS 120 DEGS WIND- 57 KNOTS 128 DEGS ACC- VERTICAL= 36 KMGL SURGE= 09 KMGL SWAY= 15 KMGL
LACOSTE TOO DISTURBED TO READ. HURRICANE GINNY APPROACHING. OCT 29
ASKANIA NORMAL. SERVO OFF
SPECTRA-VERT CENTER PERIOD= 5.0SECS,WIDTH=.05CPS.SURGE= 5.5SECS,.11CPS.SWAY= 5.5SECS,.08CPS. CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1115	0.0	5.3	0.0	5.8	0.0	4.8	0.0	4.4	0.0	4.1	0.0	3.8	53.2	504.1(2512)	11.1	118.1
1120	0.0	5.3	0.0	5.5	0.0	5.1	0.0	4.9	0.0	4.8	0.0	4.8	52.3	501.4(2541)	10.7	118.2
1125	0.0	5.0	0.0	5.0	0.0	5.1	0.0	5.2	0.0	5.2	0.0	5.2	50.0	499.0(2562)	10.2	118.3
1130	0.0	6.1	0.0	6.2	0.0	6.0	0.0	5.8	0.0	5.6	0.0	5.4	49.6	497.6(2591)	10.3	118.1
1135	0.0	6.1	0.0	6.3	0.0	6.0	0.0	5.8	0.0	5.7	0.0	5.7	49.6	496.7(2612)	10.2	117.8
1140	0.0	5.0	0.0	5.0	0.0	5.1	0.0	5.2	0.0	5.4	0.0	5.6	49.2	496.9(2641)	10.1	117.7
1145	0.0	4.4	0.0	4.0	0.0	4.7	0.0	5.1	0.0	5.5	0.0	5.8	48.5	497.8(2662)	9.9	117.4
1150	0.0	3.5	0.0	3.0	0.0	4.0	0.0	4.5	0.0	5.0	0.0	5.4	47.0	499.1(2691)	9.5	116.7
1155	0.0	3.2	0.0	3.0	0.0	3.4	0.0	3.5	0.0	3.6	0.0	3.6	45.8	500.3(2711)	9.2	116.1
1200	0.0	3.5	0.0	3.5	0.0	3.5	0.0	3.5	0.0	3.7	0.0	4.1	47.2	501.8(2732)	9.8	117.0
1205	0.0	3.0	0.0	2.6	0.0	3.5	0.0	4.1	0.0	4.7	0.0	5.5	46.8	502.9(2752)	9.5	118.0
1210	0.0	2.2	0.0	1.5	0.0	3.0	0.0	3.8	0.0	4.4	0.0	5.1	44.2	504.4(2781)	8.9	117.9
1215	0.0	2.3	0.0	1.6	0.0	3.0	0.0	3.6	0.0	4.0	0.0	4.4	42.6	506.2(2801)	8.8	118.4
1220	0.0	1.5	0.0	1.3	0.0	1.8	0.0	2.1	0.0	2.4	0.0	2.7	42.2	509.0(3521)	8.7	118.3
1225	0.0	2.1	0.0	2.0	0.0	2.2	0.0	2.4	0.0	2.7	0.0	3.1	41.9	509.4(3541)	8.6	117.6
1230	0.0	1.7	0.0	1.2	0.0	2.3	0.0	2.8	0.0	3.1	0.0	3.5	40.3	509.6(3561)	8.1	116.7
1235	0.0	2.5	0.0	2.1	0.0	2.9	0.0	3.6	0.0	4.4	0.0	5.1	39.5	510.2(3572)	8.0	116.0
1240	0.0	4.9	0.0	4.4	0.0	5.4	0.0	5.9	0.0	6.4	0.0	7.0	39.6	511.1(3592)	8.1	117.1
1245	0.0	6.3	0.0	5.8	0.0	6.6	0.0	6.6	0.0	6.5	0.0	6.4	39.6	512.2(3612)	8.1	116.8
1250	0.0	5.2	0.0	5.3	0.0	5.2	0.0	5.2	0.0	5.2	0.0	5.3	40.0	513.7(3632)	8.2	116.2
1255	0.0	3.2	0.0	3.1	0.0	3.4	0.0	3.7	0.0	4.1	0.0	4.6	39.5	515.4(3652)	8.0	116.7
MEAN	0.0	3.9	0.0	3.7	0.0	4.1	0.0	4.3	0.0	4.5	0.0	4.8	45.1	504.7	9.2	117.3
DEV	0.0	1.5	0.0	1.7	0.0	1.3	0.0	1.1	0.0	1.0	0.0	1.0	4.4		.9	.7
RMS	0.0	4.2	0.0	4.1	0.0	4.4	0.0	4.5	0.0	4.7	0.0	5.0				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.45	-.01		.09

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3	6	3	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 102 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS DEGS WIND- KNOTS DEGS ACC- VERTICAL= 73 KMGL SURGE= 19 KMGL SWAY= 23 KMGL
LACOSTE CLAMPED. HURRICANE GINNY PASSING, WINDS GUSTING TO 95 MPH,SEVERE ROLLINGAND SLAMMING. OCT 29
ASKANIA CLAMPED. LEFT GRAVITY RANGE.

CROSS. COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
9999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0(0)	0.0	0.0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 103 BAFFIN CRUISE, OCT 1963

TRACK-149 KNOTS 300 DEGS WIND- 28 KNOTS 141 DEGS ACC- VERTICAL= 23 KMGL SURGE= KMGL SWAY= KMGL
LACOSTE CLAMPED. OCT 30
ASKANIA NORMAL. SERVO OFF
ACC DATA INCOMPLETE. CC DETERMINATION SIGNIFICANT BUT UNCERTAIN DUE TO PLATFORM AZIMUTH ERROR CROSS COUP. MISSING

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
625	0.0	-9.3	0.0	-9.1	0.0	-9.4	0.0	-9.5	0.0	-9.7	0.0	-9.7	-72.4	511.4(3601)	15.1	296.5
630	0.0	-7.8	0.0	-7.7	0.0	-8.1	0.0	-8.4	0.0	-8.9	0.0	-9.4	-72.0	509.7(3562)	15.2	298.0
635	0.0	-9.0	0.0	-8.3	0.0	-9.8	0.0	-10.6	0.0	-11.2	0.0	-12.0	-71.4	509.3(3531)	15.4	300.4
640	0.0	-8.2	0.0	-7.4	0.0	-8.9	0.0	-9.6	0.0	-10.3	0.0	-11.0	-70.4	505.6(2792)	15.2	300.7
645	0.0	-8.0	0.0	-7.4	0.0	-8.6	0.0	-9.2	0.0	-9.9	0.0	-10.7	-69.4	503.1(2761)	15.0	300.9
650	0.0	-8.7	0.0	-8.1	0.0	-9.4	0.0	-10.0	0.0	-10.5	0.0	-10.8	-68.7	501.2(2722)	14.9	301.3
655	0.0	-9.1	0.0	-8.7	0.0	-9.5	0.0	-9.8	0.0	-10.0	0.0	-10.2	-68.3	499.4(2692)	14.9	301.2
700	0.0	-8.3	0.0	-8.0	0.0	-8.6	0.0	-8.8	0.0	-9.1	0.0	-9.4	-67.9	497.6(2661)	14.9	301.7
705	0.0	-8.7	0.0	-8.4	0.0	-8.8	0.0	-9.0	0.0	-9.2	0.0	-9.2	-67.9	496.7(2622)	14.8	301.1
710	0.0	-10.8	0.0	-10.7	0.0	-10.9	0.0	-11.0	0.0	-11.1	0.0	-11.1	-68.4	497.6(2591)	14.7	299.6
715	0.0	-13.3	0.0	-13.3	0.0	-13.1	0.0	-12.8	0.0	-12.4	0.0	-12.0	-68.4	499.9(2552)	14.6	299.4
720	0.0	-15.4	0.0	-15.9	0.0	-14.6	0.0	-13.8	0.0	-12.8	0.0	-12.0	-68.6	503.6(2521)	14.6	298.9
725	0.0	-14.9	0.0	-15.7	0.0	-14.2	0.0	-13.6	0.0	-13.0	0.0	-12.3	-69.3	506.5(1782)	14.7	298.0
MEAN	0.0	-10.1	0.0	-9.9	0.0	-10.3	0.0	-10.4	0.0	-10.6	0.0	-10.7	-69.4	503.2	14.9	299.8
DEV	0.0	2.5	0.0	2.9	0.0	2.1	0.0	1.7	0.0	1.3	0.0	1.0	1.5		.2	1.5
RMS	0.0	10.4	0.0	10.3	0.0	10.5	0.0	10.6	0.0	10.7	0.0	10.8				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													-.28	0.00		.42

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	4	0	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 104 BAFFIN CRUISE, OCT 1963

TRACK-114 KNOTS 120 DEGS WIND- 40 KNOTS 151 DEGS ACC- VERTICAL= 60 KMGL SURGE= KMGL SWAY= KMGL
LACOSTE CLAMPED. OCT 30
ASKANIA NORMAL. SERVO OFF
ACC DATA INCOMPLETE. CC DETERMINATION SIGNIFICANT BUT UNCERTAIN DUE TO PLATFORM AZIMUTH ERROR

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
835	0.0	-1.8	0.0	-1.7	0.0	-2.0	0.0	-2.3	0.0	-2.6	0.0	-3.0	53.5	505.3(2501)	11.3	120.1
840	0.0	-.6	0.0	-.1	0.0	-1.0	0.0	-1.4	0.0	-1.8	0.0	-2.2	53.8	502.6(2531)	11.3	120.1
845	0.0	.1	0.0	.6	0.0	-.3	0.0	-.8	0.0	-1.3	0.0	-1.7	53.9	499.9(2552)	11.4	120.2
850	0.0	-.4	0.0	-.1	0.0	-.7	0.0	-1.0	0.0	-1.3	0.0	-1.7	53.7	498.1(2581)	11.3	120.3
855	0.0	0.0	0.0	.4	0.0	-.4	0.0	-.6	0.0	-.9	0.0	-1.1	54.5	496.8(2611)	11.5	119.2
900	0.0	-.3	0.0	.1	0.0	-.6	0.0	-.9	0.0	-1.1	0.0	-1.1	55.6	496.8(2632)	11.6	118.6
905	0.0	-1.7	0.0	-1.7	0.0	-1.5	0.0	-1.2	0.0	-.9	0.0	-.5	56.0	497.8(2662)	11.6	118.2
910	0.0	-1.6	0.0	-2.2	0.0	-1.1	0.0	-.5	0.0	0.0	0.0	.4	55.7	499.1(2691)	11.5	118.3
915	0.0	-1.1	0.0	-1.6	0.0	-.8	0.0	-.6	0.0	-.4	0.0	-.1	55.5	500.9(2721)	11.4	117.9
920	0.0	-1.2	0.0	-1.5	0.0	-.8	0.0	-.4	0.0	.1	0.0	.5	55.4	502.3(2742)	11.4	117.9
925	0.0	-1.0	0.0	-1.4	0.0	-.7	0.0	-.4	0.0	-.1	0.0	.1	55.4	504.1(2772)	11.5	118.4
930	0.0	-1.6	0.0	-1.8	0.0	-1.4	0.0	-1.2	0.0	-1.0	0.0	-.8	55.6	506.2(3501)	11.5	118.3
935	0.0	-2.7	0.0	-2.9	0.0	-2.4	0.0	-2.1	0.0	-1.8	0.0	-1.5	56.4	509.1(3522)	11.6	117.5
940	0.0	-.9	0.0	-1.1	0.0	-.7	0.0	-.4	0.0	-.2	0.0	.1	57.2	509.5(3552)	11.7	116.7
945	0.0	-.6	0.0	-1.0	0.0	-.3	0.0	0.0	0.0	.2	0.0	.4	57.0	510.4(3581)	11.6	116.8
950	0.0	-.7	0.0	-.8	0.0	-.6	0.0	-.5	0.0	-.5	0.0	-.4	57.3	511.9(3611)	11.8	117.2
955	0.0	-1.5	0.0	-1.6	0.0	-1.4	0.0	-1.3	0.0	-1.1	0.0	-.7	57.8	513.7(3632)	11.8	116.9
MEAN	0.0	-1.0	0.0	-1.0	0.0	-.9	0.0	-.9	0.0	-.8	0.0	-.7	55.5	503.7	11.5	118.3
DEV	0.0	.7	0.0	.9	0.0	.5	0.0	.5	0.0	.7	0.0	.9	1.2		.1	1.1
RMS	0.0	1.3	0.0	1.4	0.0	1.1	0.0	1.1	0.0	1.1	0.0	1.2				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													-.30	-.01		.34

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	1	4	8	4	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 105 BAFFIN CRUISE,OCT 1963

TRACK-117 KNOTS 300 DEGS WIND- 40 KNOTS 181 DEGS ACC- VERTICAL= 20 KMGL SURGE= KMGL SWAY= KMGL
LACOSTE TRIED BUT CLAMPED AGAIN DUE TO POOR RECORDS. OCT 30
ASKANIA NORMAL EXCEPT FOR OSC WITH 7 MIN PERIOD. SERVO OFF
ACC DATA INCOMPLETE. CC DETERMINATION SIGNIFICANT BUT UNCERTAIN DUE TO PLATFORM AZIMUTH ERROR.

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1110	0.0	-8.3	0.0	-7.8	0.0	-8.8	0.0	-9.3	0.0	-9.9	0.0	-10.7	-57.9	511.7(3602)	12.2	298.3
1115	0.0	-9.4	0.0	-8.7	0.0	-9.9	0.0	-10.4	0.0	-10.7	0.0	-11.1	-57.4	510.2(3572)	12.0	297.6
1120	0.0	-10.4	0.0	-10.1	0.0	-10.7	0.0	-11.1	0.0	-11.5	0.0	-11.9	-57.1	509.5(3551)	11.9	297.2
1125	0.0	-11.4	0.0	-11.1	0.0	-11.8	0.0	-12.1	0.0	-12.5	0.0	-12.9	-56.8	509.0(3521)	11.9	297.5
1130	0.0	-9.7	0.0	-9.3	0.0	-10.1	0.0	-10.5	0.0	-10.8	0.0	-11.0	-56.6	505.6(2792)	11.8	297.5
1135	0.0	-9.3	0.0	-9.0	0.0	-9.8	0.0	-10.3	0.0	-10.8	0.0	-11.3	-56.7	503.4(2762)	11.9	297.4
1140	0.0	-10.4	0.0	-9.7	0.0	-11.2	0.0	-11.8	0.0	-12.4	0.0	-12.9	-56.5	502.0(2741)	11.8	297.5
1145	0.0	-11.1	0.0	-10.7	0.0	-11.3	0.0	-11.5	0.0	-11.8	0.0	-12.2	-56.1	500.3(2711)	11.6	297.0
1150	0.0	-10.4	0.0	-10.2	0.0	-10.5	0.0	-10.8	0.0	-11.3	0.0	-11.9	-55.9	498.5(2681)	11.6	297.1
1155	0.0	-4.8	0.0	-4.4	0.0	-5.1	0.0	-5.3	0.0	-5.2	0.0	-5.1	-49.5	497.3(2652)	9.5	295.8
1200	0.0	-7.6	0.0	-7.7	0.0	-7.5	0.0	-7.4	0.0	-7.3	0.0	-7.1	-52.7	496.8(2632)	11.4	294.3
1205	0.0	-16.4	0.0	-16.5	0.0	-16.6	0.0	-16.8	0.0	-17.0	0.0	-17.0	-61.8	497.1(2601)	13.4	296.2
1210	0.0	-15.4	0.0	-15.4	0.0	-15.2	0.0	-14.9	0.0	-14.5	0.0	-14.0	-58.5	498.7(2571)	11.5	296.7
1215	0.0	-12.2	0.0	-12.6	0.0	-11.9	0.0	-11.7	0.0	-11.7	0.0	-11.7	-55.1	500.8(2542)	11.5	297.3
1220	0.0	-14.3	0.0	-14.2	0.0	-14.3	0.0	-14.3	0.0	-14.3	0.0	-14.2	-54.2	504.1(2512)	11.4	298.4
1225	0.0	-15.8	0.0	-16.0	0.0	-15.4	0.0	-14.8	0.0	-14.1	0.0	-13.6	-54.0	506.1(1791)	11.3	297.3
MEAN	0.0	-11.0	0.0	-10.8	0.0	-11.2	0.0	-11.4	0.0	-11.6	0.0	-11.7	-56.0	503.1	11.6	297.0
DEV	0.0	3.0	0.0	3.2	0.0	2.9	0.0	2.7	0.0	2.7	0.0	2.6	2.6		.7	.9
RMS	0.0	11.5	0.0	11.3	0.0	11.6	0.0	11.8	0.0	11.9	0.0	12.1				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.52	0.00		-.24

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	7	4	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 106 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS 184 DEGS WIND- 32 KNOTS 215 DEGS ACC- VERTICAL= 78 KMGL SURGE= 27 KMGL SWAY= 15 KMGL
LACOSTE CLAMPED. OCT 30
ASKANIA NORMAL. SERVO OFF
ACC DATA INCOMPLETE.CC DOUBTFUL DUE TO OCCASIONAL ACCELEROMETER LIMITING. CROSS. COUP.=+33.0 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
1555	0.0	9.8	0.0	8.7	0.0	10.7	0.0	11.4	0.0	12.0	0.0	12.5	-3.8	507.9(2382)	8.5	185.8
1600	0.0	11.4	0.0	10.9	0.0	11.9	0.0	12.1	0.0	11.8	0.0	11.4	-4.7	508.5(2392)	8.8	186.2
1605	0.0	10.3	0.0	10.7	0.0	10.0	0.0	9.6	0.0	9.1	0.0	8.7	-5.1	508.8(2402)	8.9	186.6
1610	0.0	8.3	0.0	8.7	0.0	8.0	0.0	7.7	0.0	7.5	0.0	7.1	-5.2	508.7(2412)	8.6	186.8
1615	0.0	8.3	0.0	8.6	0.0	7.9	0.0	7.5	0.0	7.1	0.0	6.8	-4.1	508.4(2422)	8.2	184.8
1620	0.0	7.3	0.0	7.7	0.0	6.8	0.0	6.3	0.0	5.7	0.0	5.0	-2.9	508.7(2432)	8.4	183.6
1625	0.0	5.4	0.0	6.0	0.0	4.9	0.0	4.4	0.0	4.2	0.0	4.3	-1.5	509.1(2442)	8.7	181.5
1630	0.0	5.0	0.0	5.1	0.0	5.0	0.0	4.9	0.0	4.8	0.0	4.9	-.4	509.4(2452)	8.9	180.5
1635	0.0	4.2	0.0	4.2	0.0	4.3	0.0	4.7	0.0	4.8	0.0	4.8	-.8	509.6(2462)	8.7	181.8
1640	0.0	4.4	0.0	4.2	0.0	4.6	0.0	5.1	0.0	5.8	0.0	6.2	-1.1	509.9(2472)	8.5	181.8
1645	0.0	7.1	0.0	6.8	0.0	7.2	0.0	7.2	0.0	7.4	0.0	7.7	-.3	510.1(3302)	8.3	180.3
1650	0.0	7.7	0.0	7.5	0.0	7.7	0.0	7.2	0.0	6.7	0.0	6.6	-.5	510.2(3312)	8.4	181.3
1655	0.0	5.2	0.0	5.1	0.0	5.3	0.0	5.3	0.0	4.8	0.0	4.3	-1.8	510.3(3321)	7.8	183.5
1700	0.0	3.2	0.0	3.7	0.0	3.0	0.0	3.0	0.0	3.0	0.0	2.8	-2.7	510.1(3331)	7.6	184.3
1705	0.0	3.4	0.0	3.7	0.0	3.3	0.0	3.4	0.0	3.9	0.0	4.3	-2.7	509.2(3341)	7.6	183.9
1710	0.0	4.7	0.0	4.4	0.0	4.9	0.0	5.1	0.0	5.3	0.0	5.6	-2.7	509.0(3342)	7.8	184.1
1715	0.0	5.1	0.0	4.8	0.0	5.5	0.0	5.8	0.0	6.0	0.0	6.2	-3.3	509.2(3352)	7.9	185.1
1720	0.0	6.0	0.0	5.8	0.0	6.2	0.0	6.6	0.0	6.8	0.0	6.8	-3.7	509.2(3362)	7.7	185.5
1725	0.0	6.8	0.0	6.9	0.0	6.6	0.0	6.2	0.0	5.5	0.0	4.9	-3.6	509.3(3371)	7.6	185.1
1730	0.0	4.3	0.0	4.8	0.0	4.0	0.0	3.7	0.0	3.5	0.0	3.6	-3.6	509.4(3381)	7.5	185.4
1735	0.0	3.4	0.0	3.3	0.0	3.6	0.0	4.2	0.0	5.1	0.0	6.3	-3.9	509.4(3391)	8.0	185.7
1740	0.0	8.0	0.0	7.1	0.0	8.4	0.0	8.4	0.0	8.3	0.0	8.3	-3.3	509.2(3401)	8.3	184.0
1745	0.0	9.5	0.0	9.4	0.0	9.2	0.0	8.6	0.0	7.7	0.0	6.5	-2.1	509.2(3402)	7.4	182.8
1750	0.0	4.8	0.0	5.9	0.0	4.1	0.0	3.7	0.0	3.6	0.0	3.4	-1.9	510.1(3412)	7.4	183.1
1755	0.0	2.7	0.0	3.0	0.0	2.6	0.0	2.7	0.0	3.0	0.0	3.4	-1.9	510.5(3421)	7.8	182.9
1800	0.0	4.5	0.0	4.2	0.0	4.6	0.0	4.7	0.0	4.9	0.0	5.2	-1.2	510.3(3431)	7.5	181.6
1805	0.0	5.0	0.0	4.7	0.0	5.3	0.0	5.5	0.0	5.5	0.0	5.5	-2.0	510.1(3432)	7.6	183.8
1810	0.0	4.6	0.0	4.4	0.0	5.3	0.0	6.1	0.0	6.7	0.0	7.1	-3.5	509.6(3442)	7.7	185.9
1815	0.0	8.4	0.0	8.0	0.0	8.8	0.0	9.2	0.0	9.7	0.0	10.0	-3.0	509.2(3451)	7.5	183.8
1820	0.0	12.0	0.0	11.9	0.0	11.6	0.0	10.9	0.0	10.2	0.0	9.4	-2.2	508.1(3461)	7.1	183.4
1825	0.0	8.5	0.0	9.3	0.0	7.7	0.0	7.0	0.0	6.5	0.0	6.2	-2.7	507.8(3462)	7.2	184.6
1830	0.0	6.0	0.0	6.3	0.0	5.6	0.0	5.3	0.0	5.1	0.0	5.0	-2.6	507.7(3471)	7.5	183.7
1835	0.0	5.5	0.0	5.6	0.0	5.5	0.0	5.5	0.0	5.3	0.0	4.9	-2.2	507.6(3481)	7.2	183.3
1840	0.0	4.2	0.0	4.4	0.0	4.3	0.0	4.7	0.0	5.3	0.0	5.9	-2.6	507.7(4302)	7.1	184.6
1845	0.0	5.0	0.0	4.5	0.0	5.4	0.0	6.0	0.0	6.7	0.0	7.6	-3.9	507.8(4311)	7.0	186.8
1850	0.0	6.3	0.0	5.7	0.0	6.6	0.0	6.7	0.0	6.6	0.0	6.5	-5.0	508.5(4321)	7.5	187.9
1855	0.0	6.6	0.0	6.5	0.0	6.5	0.0	6.1	0.0	5.6	0.0	5.4	-4.6	509.0(4322)	7.0	186.6
MEAN	0.0	6.2	0.0	6.2	0.0	6.2	0.0	6.2	0.0	6.2	0.0	6.2	-2.7	509.1	7.8	184.1
DEV	0.0	2.3	0.0	2.2	0.0	2.3	0.0	2.2	0.0	2.1	0.0	2.1	1.3		.5	1.8
RMS	0.0	6.7	0.0	6.7	0.0	6.7	0.0	6.7	0.0	6.6	0.0	6.6				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													-.31	0.00		.19

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	10	4	4	5	1	3	2

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 107 BAFFIN CRUISE,OCT 1963

TRACK- KNOTS 004 DEGS WIND- 44 KNOTS 216 DEGS ACC- VERTICAL= 18 KMGL SURGE= 18 KMGL SWAY= 13 KMGL
LACOSTE CLAMPED. OCT 30
ASKANIA NORMAL. SERVO OFF
ACC DATA INCOMPLETE CROSS. COUP. =- 6.6 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
2040	0.0	-24.0	0.0	-24.5	0.0	-23.7	0.0	-23.5	0.0	-23.5	0.0	-23.6	8.9	510.5(3421)	12.7	6.7
2045	0.0	-23.1	0.0	-22.9	0.0	-23.3	0.0	-23.6	0.0	-23.8	0.0	-24.1	8.3	509.2(3402)	12.9	6.0
2050	0.0	-25.0	0.0	-24.5	0.0	-25.7	0.0	-26.3	0.0	-26.7	0.0	-26.8	8.0	509.3(3392)	13.1	5.8
2055	0.0	-26.4	0.0	-26.4	0.0	-26.3	0.0	-26.3	0.0	-26.3	0.0	-26.2	8.5	509.4(3381)	12.6	6.8
2100	0.0	-26.7	0.0	-26.9	0.0	-26.2	0.0	-25.4	0.0	-24.7	0.0	-24.1	7.5	509.2(3362)	12.2	5.5
2105	0.0	-28.0	0.0	-28.1	0.0	-28.1	0.0	-28.1	0.0	-28.0	0.0	-27.8	3.5	509.2(3352)	12.6	1.0
2110	0.0	-28.9	0.0	-29.2	0.0	-28.9	0.0	-29.2	0.0	-29.7	0.0	-30.2	2.2	509.2(3341)	13.2	1.3
2115	0.0	-28.3	0.0	-28.2	0.0	-27.9	0.0	-27.5	0.0	-27.6	0.0	-28.4	5.2	510.2(3322)	13.3	4.6
2120	0.0	-27.6	0.0	-26.7	0.0	-28.2	0.0	-28.6	0.0	-28.8	0.0	-28.7	6.9	510.2(3311)	13.2	5.1
2125	0.0	-27.9	0.0	-28.0	0.0	-28.1	0.0	-28.4	0.0	-28.2	0.0	-27.2	7.3	509.9(2472)	12.7	5.6
2130	0.0	-25.8	0.0	-27.0	0.0	-24.7	0.0	-23.6	0.0	-22.6	0.0	-21.7	7.0	509.5(2461)	12.6	5.2
2135	0.0	-22.5	0.0	-23.2	0.0	-21.8	0.0	-21.1	0.0	-20.5	0.0	-20.0	5.1	509.1(2442)	13.2	2.8
2140	0.0	-20.5	0.0	-20.7	0.0	-20.3	0.0	-20.4	0.0	-20.6	0.0	-21.0	3.9	508.6(2431)	12.9	2.5
2145	0.0	-21.5	0.0	-21.1	0.0	-21.8	0.0	-22.0	0.0	-22.4	0.0	-22.8	3.9	508.7(2412)	12.8	2.7
2150	0.0	-23.2	0.0	-23.1	0.0	-23.4	0.0	-23.5	0.0	-23.6	0.0	-23.9	3.6	508.7(2401)	13.3	2.1
2155	0.0	-22.6	0.0	-22.3	0.0	-23.0	0.0	-23.0	0.0	-22.9	0.0	-22.7	4.4	507.9(2382)	13.4	3.3
2200	0.0	-20.6	0.0	-20.2	0.0	-21.3	0.0	-21.8	0.0	-22.3	0.0	-22.5	4.9	505.8(2371)	13.3	3.3
2205	0.0	-22.6	0.0	-22.5	0.0	-22.9	0.0	-23.3	0.0	-23.8	0.0	-24.4	3.9	504.9(2352)	13.2	2.2
2210	0.0	-24.1	0.0	-23.7	0.0	-24.1	0.0	-24.0	0.0	-23.8	0.0	-23.6	4.3	504.5(2341)	13.2	3.1
2215	0.0	-21.4	0.0	-21.7	0.0	-21.2	0.0	-21.0	0.0	-20.9	0.0	-20.9	5.9	504.2(2321)	13.4	4.5
MEAN	0.0	-24.5	0.0	-24.5	0.0	-24.5	0.0	-24.5	0.0	-24.5	0.0	-24.5	5.6	508.4	12.9	4.0
DEV	0.0	2.6	0.0	2.7	0.0	2.6	0.0	2.6	0.0	2.7	0.0	2.8	1.9		.3	1.7
RMS	0.0	24.7	0.0	24.7	0.0	24.7	0.0	24.7	0.0	24.7	0.0	24.7				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													-.15	0.00		-.17

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SEA GRAVIMETER RELIABILITY TESTS RUN NO. 108 BAFFIN CRUISE, OCT 1963

TRACK- KNOTS 184 DEGS WIND- 43 KNOTS 213 DEGS ACC- VERTICAL= 69 KMGL SURGE= 24 KMGL SWAY= 20 KMGL
LACOSTE CLAMPED.
ASKANIA NORMAL.
ACC DATA INCOMPLETE

OCT 30
SERVO OFF
CROSS. COUP.=+24.0 MGLS

TIME	L(T)	A(T)	L(-1)	A(-1)	L(+1)	A(+1)	L(+2)	A(+2)	L(+3)	A(+3)	L(+4)	A(+4)	EOT	RANGE	SPD	COURSE
0	0.0	13.4	0.0	12.8	0.0	13.8	0.0	14.2	0.0	14.6	0.0	15.0	-1.4	504.1(2312)	4.8	182.2
5	0.0	15.6	0.0	15.6	0.0	15.3	0.0	14.7	0.0	14.1	0.0	13.4	-.7	504.2(2321)	4.9	181.4
10	0.0	12.2	0.0	13.0	0.0	11.4	0.0	10.8	0.0	10.2	0.0	9.7	-1.0	504.3(2322)	5.0	182.7
15	0.0	9.7	0.0	9.7	0.0	9.7	0.0	9.6	0.0	9.5	0.0	9.5	-.9	504.4(2332)	4.8	181.9
20	0.0	9.8	0.0	9.8	0.0	9.8	0.0	10.0	0.0	10.4	0.0	10.8	-.5	504.5(2341)	4.6	181.0
25	0.0	9.7	0.0	9.5	0.0	9.8	0.0	10.0	0.0	10.3	0.0	10.6	-1.7	504.6(2342)	5.5	184.8
30	0.0	10.1	0.0	9.5	0.0	11.0	0.0	11.8	0.0	12.3	0.0	12.7	-2.7	504.7(2351)	5.9	185.3
35	0.0	12.5	0.0	12.2	0.0	12.7	0.0	12.8	0.0	12.9	0.0	13.0	-2.9	505.0(2361)	5.7	185.7
40	0.0	12.5	0.0	12.5	0.0	12.3	0.0	11.9	0.0	11.6	0.0	11.8	-3.0	505.3(2362)	5.6	186.0
45	0.0	11.1	0.0	10.8	0.0	11.4	0.0	11.8	0.0	12.1	0.0	12.4	-2.8	506.5(2372)	5.1	185.9
MEAN	0.0	11.6	0.0	11.5	0.0	11.7	0.0	11.7	0.0	11.8	0.0	11.8	-1.7	504.7	5.1	183.6
DEV	0.0	1.8	0.0	1.9	0.0	1.7	0.0	1.6	0.0	1.6	0.0	1.6	.9		.4	1.9
RMS	0.0	11.8	0.0	11.7	0.0	11.8	0.0	11.9	0.0	11.9	0.0	12.0				
CORR L		0.00(SLOPE= 0.00)											0.00	0.00		0.00
CORR A													.06	0.00		-.16

ERROR INTERVAL	LB	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	00	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	UB
NUMBER LACOSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER ASKANIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	6

PART III

Discussion of Results

3.1 Gravimeter observations

In Figure 5 the observed gravimeter errors are summarized together with the acceleration data. Shown for each run is the rms acceleration in surge, sway and heaving motion, the mean gravimeter error for each gravimeter, the average computed cross-coupling effect for the Askania gravimeter and the coefficient of correlation between LaCoste and Askania gravimeter errors. The standard deviation of the errors observed during a run was usually small and varied little from run to run. The most serious type of error experienced with both gravimeters was systematic throughout a run; in Figure 5, for this reason, the mean gravimeter errors have been plotted rather than the standard deviation or the root mean square.

The general state of the sea throughout the test can be inferred from the graph in Figure 5 showing the rms heave acceleration. It was moderately rough during the first 10 runs; in addition, a proper course-keeping procedure had not yet been established. The stabilized platform supporting the Askania gravimeter was apparently upset by large turning accelerations, and the gravimeter record was generally poor and sometimes unusable. The gimbal-mounted LaCoste gravimeter tolerated the turning accelerations somewhat better, and the records for the first 10 runs do not differ significantly from the records for later runs. The sea became fairly calm after run no. 10, and the errors observed in the LaCoste gravimeter results were small until run no. 31, when, owing to increasing sea motion, the records became very disturbed. Throughout runs nos. 31 to 41 several LaCoste records were unusable because the gravimeter beam hit its tops. A few records were partly readable but included frequent large negative errors. At run no. 16 the Askania beam servo loop was disconnected to obtain measurements with the meter in normal mode. The servo-counter reading was not noted and consequently the Askania results for runs nos. 16 to 29 include an uncertainty in absolute value that may be different for each run. With the exception of this possible offset the results are probably accurate, since the standard deviation of the observed errors is small. During the moderately rough period beginning at run no. 29 and continuing until the ship returned to port after run no. 41, the errors observed in the Askania gravimeter results were due largely to cross-coupling effect. A comparison of the observed gravimeter errors and the computed cross-coupling effect for these runs is presented later. Askania results for runs nos. 34, 37 and 38 are missing owing to platform adjustments and missing servo-counter readings. The reasons for missing measurements throughout the test are in general noted on the data sheets. Runs nos. 56, 57 and 58 were not made on the test range.

The sea was calm throughout the next series of runs, which ended when the ship returned to port after run no. 62. Cross-coupling effect was negligible, and the Askania gravimeter errors were all very small. The LaCoste gravimeter errors, however, were surprisingly large and negative in spite of the very little ship motion. As the LaCoste gravimeter readings at dockside before and after this series of runs agreed with previous dockside readings, the observed errors are not likely to be due to a shift in the gravimeter zero reference. The possibility that the errors are due to anomalous performance of the accelerometer-computer system used for correcting the gravimeter readings to the vertical is discussed in section 3.3.

The first four runs of the next series, beginning with run no. 63, were made on the north-south range line approximately parallel to the direction of a moderately rough sea. When running with the sea both gravimeters performed well, but on the return course the heave acceleration was two to three times greater and the LaCoste records became unusable. The ship changed over then to the east-west range, where the test was continued. At the same time the wind dropped and the sea, which was now closer to the beam, became gradually calmer. The sea remained calm and the results from both gravimeters were fairly good until run no. 100, in which long-period swells from an approaching hurricane were encountered. The LaCoste record became very much disturbed, and readings were too low by as much as 30 mgals. The sea rapidly became very rough and, although good results were still obtained from the Askania gravimeter for run no. 101, it became impossible to operate the meter during the return course on run no. 102. The test was suspended then for 24 hours while Hurricane Ginny passed through the range area. The Askania gravimeter and platform were unclamped and operating while the ship was hove to in the hurricane. Heave accelerations reached 200 gal peak amplitude, and no attempt was made to reduce the gravimeter readings. It was interesting to note, however, that the gravimeter beam did not hit its stops. The sea was still rough when the test was resumed; for the remainder of the test relatively poor results were obtained with the Askania gravimeter and none at all with the LaCoste. The possibility that the poor Askania results obtained during this period were due to cross coupling is discussed in section 3.5.

Figure 6 summarizes the gravimeter results in a different manner. Several consecutive runs were made back and forth along the same range line to form a group of runs, and five such groups were made by alternating between the two ranges. The figure shows the distribution of gravimeter errors for each of these five groups. For each group, the distribution of Askania gravimeter errors (solid line) and LaCoste gravimeter errors (dotted line) is shown for each of the two headings on the range line. Also shown is a

histogram of the rms heave accelerations for the corresponding group and heading. The numbers appearing beside the curves refer to the percentage of possible measurements that were in fact usable. As an example in interpreting these graphs, consider the period October 7 to 11. Of the possible Askania gravimeter measurements taken during northbound runs 77 per cent were usable and, of these, 14 per cent were in error by between −1.5 and −2.5 mgal. Ninety-seven per cent of the possible LaCoste measurements were usable and 19 per cent of these were in error by between +0.5 and +1.5 mgal. For the same group and heading the rms heave acceleration during 60 per cent of all runs was between 15 and 20 gals. The data are presented in this way to compare con-

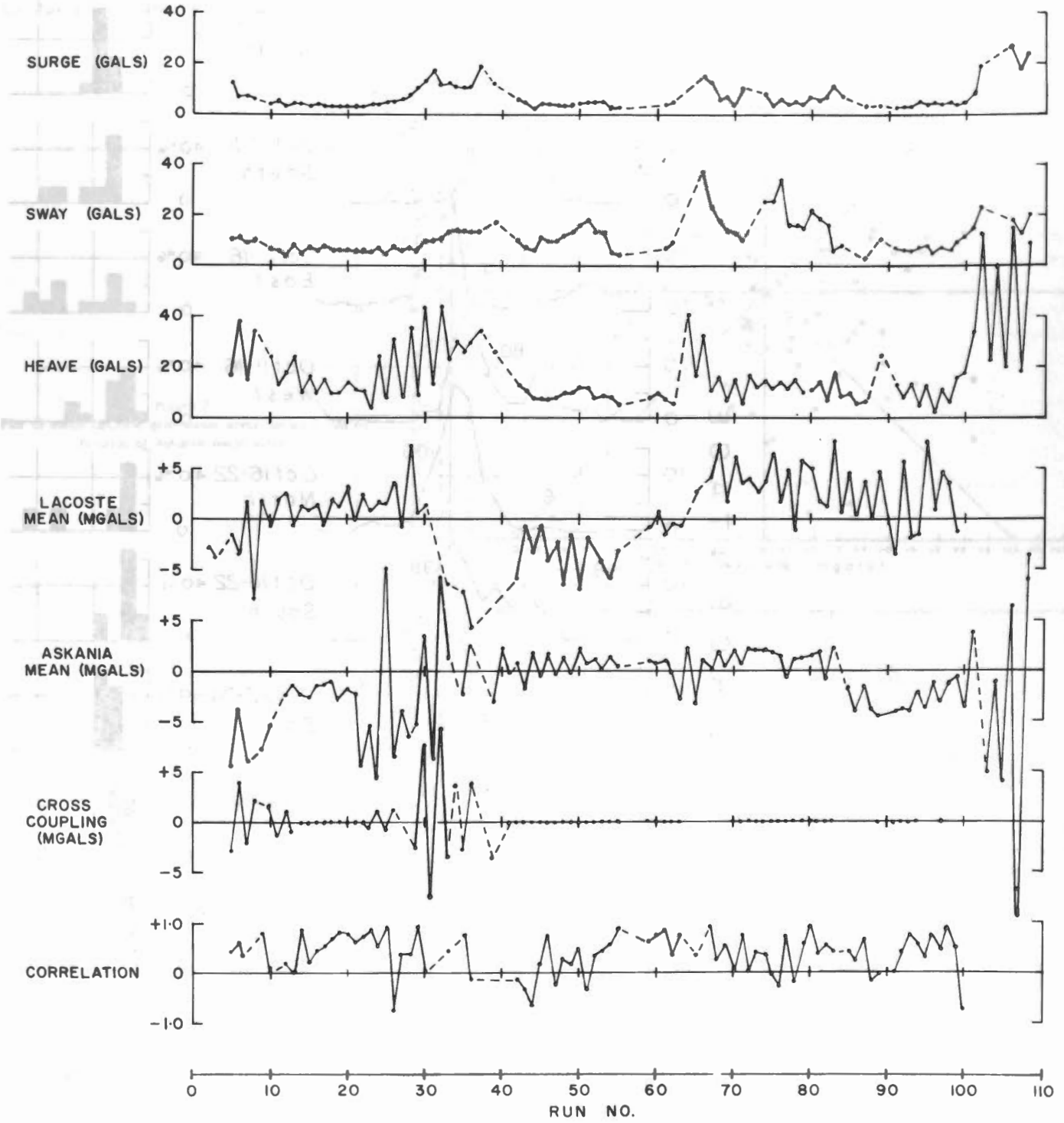


Figure 5. Summary descriptions of observations.

veniently the effect of increased ship motion on the two gravimeters and to show any possible systematic differences between reciprocal courses. Regarding the effect of increased ship motion, although the errors observed in the LaCoste gravimeter results are not directly related to the vertical acceleration, it is evident in the figure that their dispersion is greater for greater vertical acceleration and that the percentage of usable results is less. On the other hand the performance of the Askania gravimeter does not seem to be significantly affected by vertical accelerations as great as 45 gals. Regarding the effect of reciprocal courses, there appears to be no systematic difference

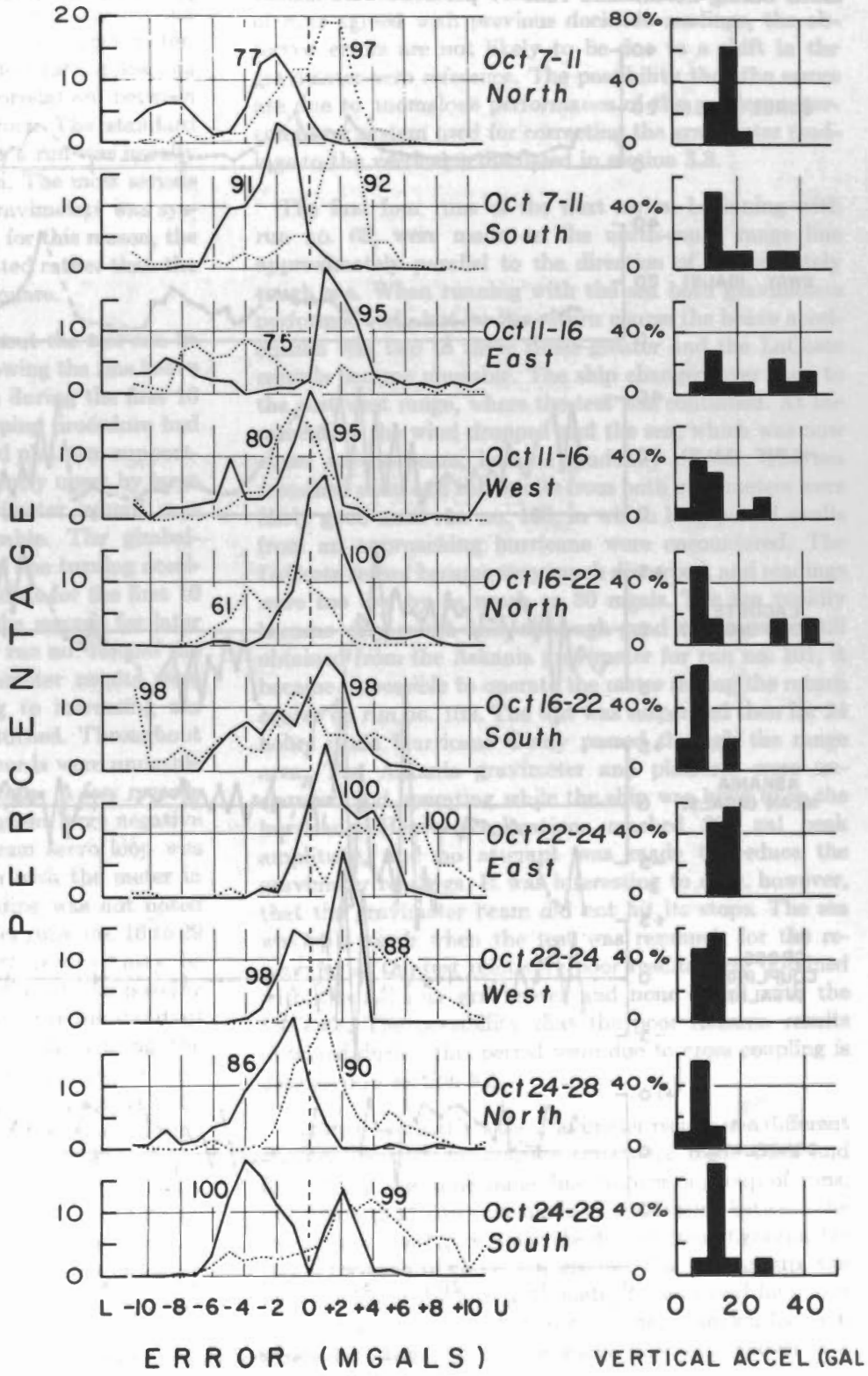


Figure 6.
Histogram showing distribution of Askania errors (solid line), LaCoste errors (dotted line), and rms vertical acceleration.

between gravimeter observations made under reciprocal headings within the same group.

Mean error and standard deviation for the two gravimeters are compared in Figures 7 and 8 for those runs for which both records are available. The mean error plot of Figure 7 suggests a Rayleigh type of distribution for Askania mean errors, tailing off through negative values and having a maximum near −1.5 mgal. It is interesting to observe that this is the sort of distribution that would result if the platform were subject, from run to run, to a random levelling error (Appendix IV). The distribution of LaCoste mean errors is centred about +0.65 mgal and is nearly normal; the dispersion, however, is about 50 per cent greater than that of the Askania errors. Similarly the standard deviation of the LaCoste measurements shown in Figure 8, is about 50 per cent greater than that of the Askania. For equal performance of the two instruments, the observed points should be equally distributed about

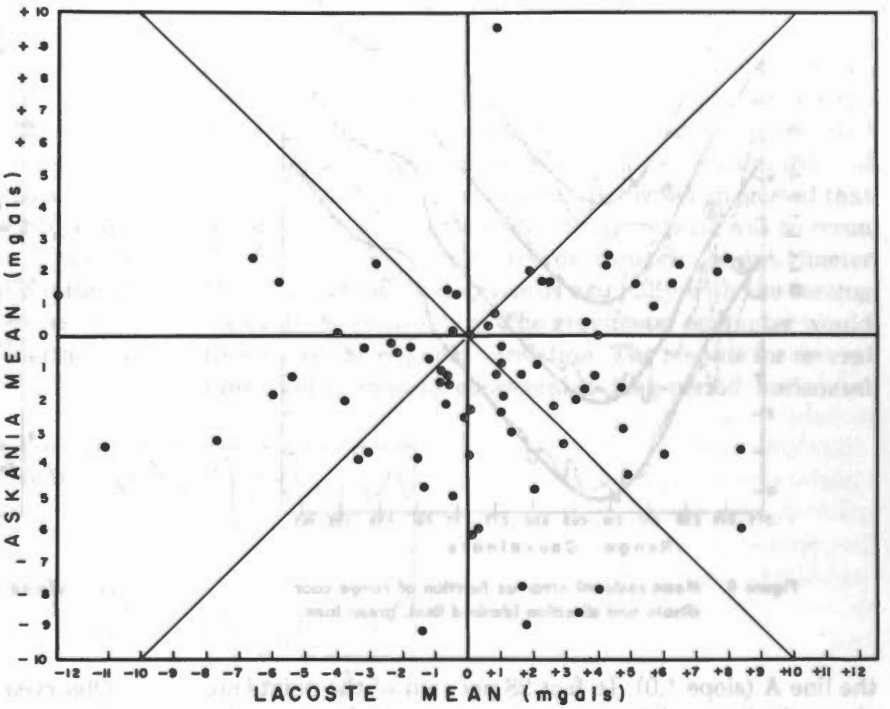


Figure 7.
Plot of mean LaCoste gravimeter error for each run as function of Askania mean error.

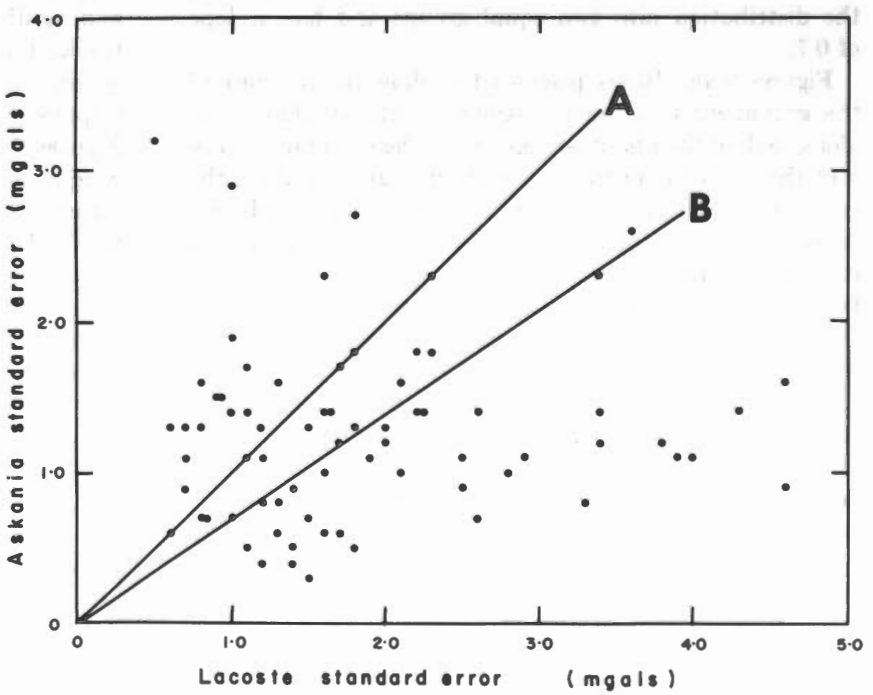


Figure 8.
Plot of standard deviation of LaCoste gravimeter measurements for each run as function of standard deviation of Askania measurements.

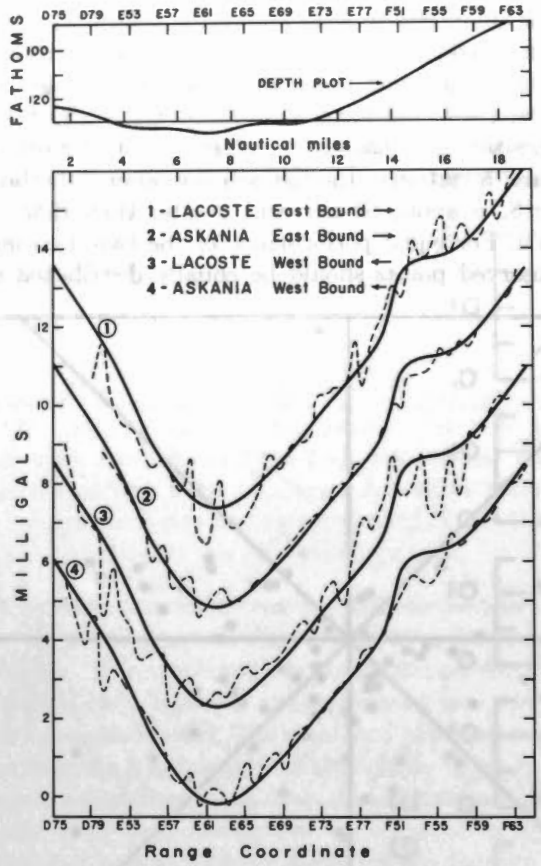


Figure 9. Mean residual error as function of range coordinate and direction (dashed line), green lane.

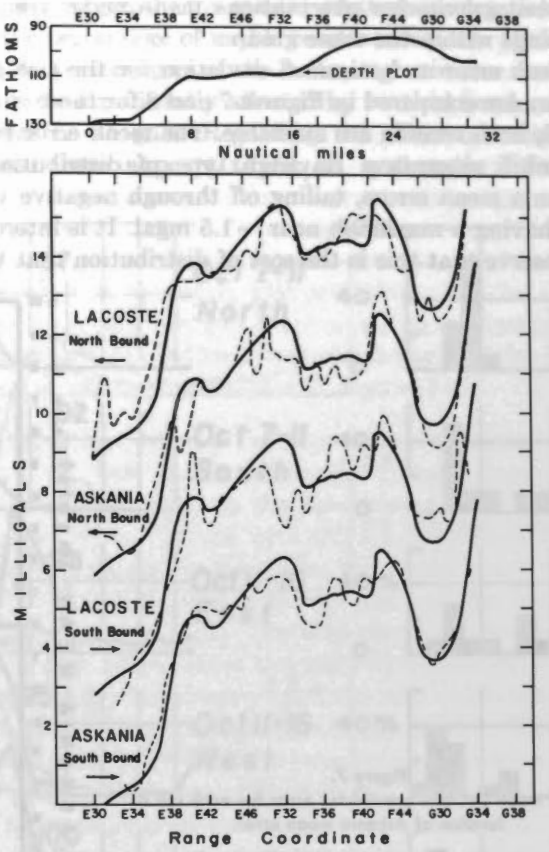


Figure 10. Mean residual error as function of range coordinate and direction (dashed line), purple lane.

the line A (slope 1.0). In fact 28 per cent of the points are above the line and 72 per cent are below. Line B divides the distribution into two equal groups and has a slope of 0.7.

Figures 9 and 10 are presented to show the response of the gravimeters to the variations in gravity that occur along each of the gravity-range lines. The solid lines represent the variation in the acceleration of gravity along the range line as a function of the Decca coordinate and were determined by extrapolating to the surface, measurements made by the LaCoste underwater gravimeter on the ocean bottom. The dashed curves have been drawn through points determined for each Decca lane by averaging all the 'residual errors' observed for that particular Decca lane by the indicated gravimeter and for the indicated test runs. The residual errors were determined by subtracting from the gravimeter errors observed during a run their arithmetic mean. Using residual errors rather than observed errors subtracts from the data substantial long-term random errors, and short-term random errors are attenuated by using the mean of a few residuals to establish each point on the curves. As a result, errors that are systematic with range position are enhanced and the resolution and time response characteristics of the gravimeters are demonstrated more clearly.

Observed gravimeter errors from each of the six pairs of columns shown on the data sheets were tested in this way, and significant time-delay effects were observed in all but the L(+3) and A(+3) columns, which were determined on the assumption of a delay of three minutes in the response of the gravimeter. This last result is shown in Figures 9 and 10. In spite of the simple 11-point, equal-weight averaging used to derive the observed gravimeter errors, the variation in gravity along the range line is resolved surprisingly well by both gravimeters. The results for the more heavily damped Askania gravimeter are less 'noisy' than those for the LaCoste but the 'bump' on the contour of the east-west range line is delineated slightly better by the LaCoste.

3.2 Vertical-nonlinearity error in the Lacoste gravimeter

Shortly after the reliability tests were completed the LaCoste gravimeter was subjected to laboratory tests by the manufacturer to determine whether errors due to non-linear response of the gravimeter to vertical acceleration were present. A significant square-law distortion was found by LaCoste which, during the laboratory test, resulted in

a gravity reading too high by the amount

$$E = .0006\ (62 - R)\ A^2 \qquad (5)$$

where E is the gravimeter error in milligals, A is the rms vertical acceleration in gals, and R is the average unfiltered-beam position referred to the 100-division chart paper of the automatic-reader output. The number 62 refers to the average unfiltered-beam chart position that results in zero nonlinearity error. Before the reliability tests were made, the chart position for zero error was 50 and the automatic-reader was adjusted to hold the average unfiltered-beam chart position near this figure. During the sea tests the automatic reader did hold the beam close to 50, but since the position for zero error is apparently subject to change, it is difficult to determine what it was during the test or whether it remained constant. Although the observed gravimeter errors for certain sections of the test are consistent with a nonlinearity error of the form given by equation 3, the beam position for the zero error would have to vary over a wide range to account for both the series of runs with negative observed errors and the series with positive errors. Therefore no attempt has been made to apply a correction based on equation 3.

In a private communication in 1965 Dr. LaCoste reported that they had succeeded in drastically reducing the distortion due to this nonlinearity, and the problem is considered no further here.

3.3 Horizontal-nonlinearity error in the LaCoste Gravimeter

The horizontal acceleration record from the LaCoste gravimeter system regularly indicated large accelerations of low frequency that were not detected by the horizontal accelerometers mounted on the stabilized platform. During a visit to Ottawa, late in 1963, Dr. LaCoste suggested that these long-period accelerations were not real and that the Browne corrections, determined by them and subtracted from the gravimeter record, should be recomputed and added to the gravimeter record. He further suggested that the simplest way to compute the corrections was to rerun the filtered acceleration records through the gravimeter recorder and follow the records manually with the zeroing knobs in the control box. The gravimeter computer would then make the required correction. The records for several runs, which showed considerable long-period horizontal

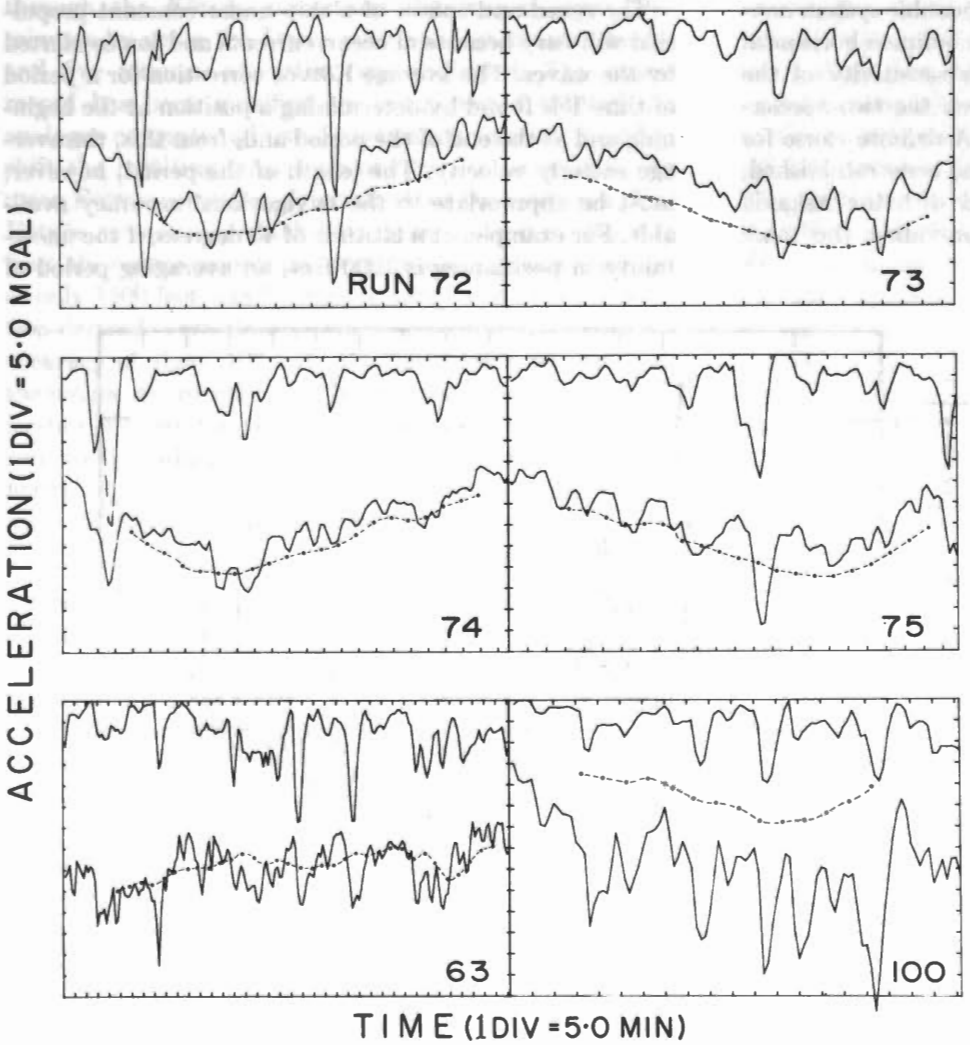


Figure 11.
Computed Browne correction (upper trace), LaCoste gravimeter record (lower trace), and true-gravity profile (dashed trace).

accelerations but were otherwise usable, were subsequently chosen, and corrections were computed according to this method. The results for the six runs chosen are shown in Figure 11. The upper trace for each run is the Browne correction computed from the long-period acceleration record. The Browne correction is always positive, but it is here reversed in polarity and plotted from the top line of each frame. The lower trace is the gravimeter record as it is before the recomputed correction has been applied to it. The dashed trace has been drawn through determinations, made at five-minute intervals, of what the gravimeter reading should have been; these determinations have been derived from the reference gravity on the range line and corrected for Eötvös effect. Both the lower and the dashed traces have a common, arbitrary zero reference. If the long-period acceleration record were in fact fictitious, the gravimeter record would equal the sum of the dashed trace and the computed corrections. This can be seen to be approximately the case for most of the data, and it can be concluded that much of the long-period acceleration recorded by the gravimeter system is due to nonlinear distortion of higher frequency accelerations rather than to actual ship motion.

Dr. LaCoste has considered several possible system nonlinearities, including the following: (i) nonlinear horizontal accelerometer response; (ii) cross-axis sensitivity of the accelerometers; (iii) interaction between the two accelerometers; (iv) insufficient servo speed. A definite cause for the results observed has not, however, been established, and the gyro-stabilized platform used with the Askania gravimeter must be considered as providing the more reliable vertical reference system.

A discussion of nonlinear effects in the measurement of gravity at sea is presented by Bower and Watt (1963).

3.4 Navigation

3.4.1 *Variation of accuracy with time of day*

Figure 12 has been plotted to show the variation of short-term errors with the time of day. Fifty-seven relatively 'normal' runs were selected with rms heave acceleration less than 17 gals, and residual errors (defined in section 3.1) were determined for both gravimeters as a function of time. The points shown in Figure 11 were obtained by averaging, without regard to sign, all the residuals occurring within 10-minute intervals (dots) and within 60-minute intervals (solid line). The resulting curves indicate that errors, although small at all times, were at least twice as great at night as during the day. The most likely explanation for this systematic difference is the degradation of navigation accuracy that occurs at night.

3.4.2 *Accuracy of Eötvös corrections determined from course records*

The speed and course of a ship under constant propulsion will vary because of ocean currents and forces exerted by the waves. The average Eötvös correction for a period of time T is found by determining a position at the beginning and at the end of the period and, from this, the average easterly velocity. The length of the period, however, must be appropriate to the navigational accuracy available. For example, at a latitude of 45 degrees, if the uncertainty in positioning is 1000 feet, an averaging period of

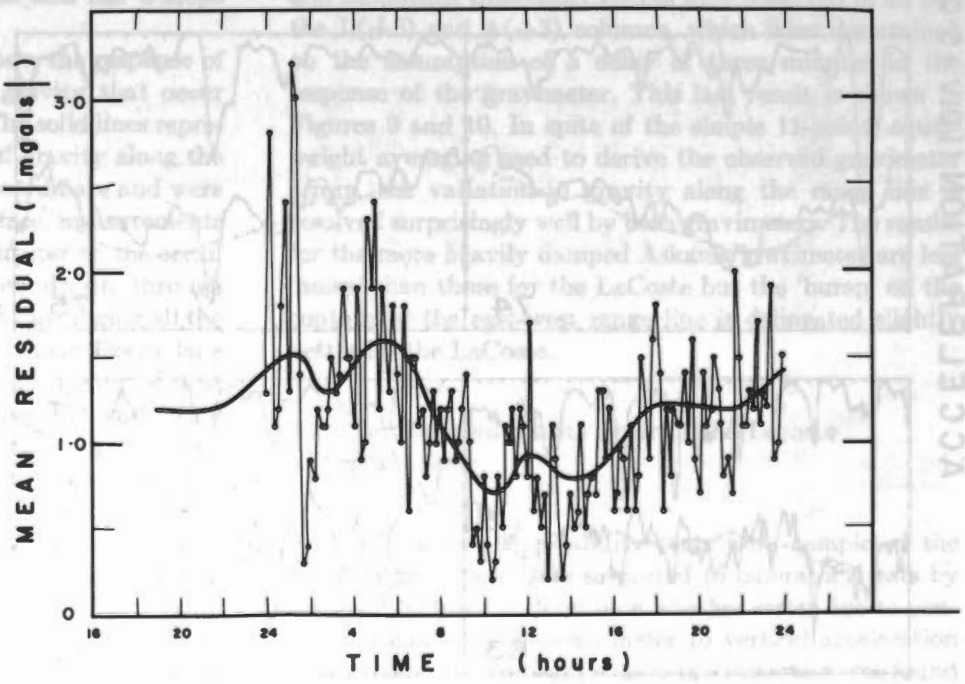


Figure 12.
Variation of gravimeter error with time of day.

100 minutes is required to determine the average Eötvös correction to within one mgal. Short-term variations in Eötvös correction occurring within the averaging period remain and constitute probably the largest source of error in the measurement of gravity at sea. The results discussed here relate to the problem of measuring these short-term variations.

The sensitivity of the Eötvös correction to small variations in course and speed can be seen by differentiating equation 1 but neglecting the small second term. For a speed of 10 knots and a latitude of 45° we then have

$$d(\Delta g_e) = 52.5\ (\mathrm{Cos}\,\varphi\, d\varphi + \mathrm{Sin}\,\varphi \frac{dV}{V}) \qquad (6)$$

from which it can be seen that the correction is course-sensitive on north-south headings and speed-sensitive on east-west headings, with rates of one mgal per degree and 5 mgal per knot, respectively. One of the two tracks used during the sea tests was oriented almost exactly north and south, and it was useful to compare the course records for this track with the Eötvös correction determined by using Decca. This comparison is shown for three consecutive runs in Figures 13, 14, and 15. A line has been drawn through the Eötvös corrections determined every five minutes by using the Decca positions five minutes before and five minutes after the time indicated. The course record has been modified by being passed through an analogue computer adjusted to simulate equation 6 and to shift the resulting output up or down to agree with the mean Eötvös correction determined for the entire run. The Eötvös corrections, which have been derived in this way from the course records and require a navigation accuracy of only 1500 feet, can be seen to agree well with the position-derived corrections, which required a navigation accuracy of about 100 feet. The corrections derived from the course record may even be the more accurate; the difference between the two determinations is greatest during run no. 14, which was made during the early morning hours, when errors in Decca-derived position due to sky-wave interference might be expected to be most serious.

3.5 Determination of cross-coupling effect

One of the aims of the test was to determine whether or not errors due to cross-coupling effect (Harrison and LaCoste, 1961) were significant. A discussion of the determination of cross-coupling in general and for this test in particular has been presented elsewhere (Bower, 1966), and only a brief account of the results will be given here.

It was found that, except in very calm seas, cross-coupling errors are generally present and increase rapidly with ship motion. When records of both range and heave accelerations were available, it was generally possible to determine these errors accurately and continuously by simulation of the gravimeter system with an analogue computer. The comparison of observed gravimeter error at five-minute intervals (dotted line) with the computed cross-coupling error (solid line) is shown for one series of runs in Figure 16. The Askania records for runs nos. 33, 34, 37 and 38 have been omitted since they are either missing or incomplete. Large cross-coupling errors were computed also for the last several runs of the test, just before and shortly after the close passage of a hurricane. Unfortunately, owing to either misalignment of the surge accelerometer in azimuth or occasional limiting of the 0.1-g heave accelerometer, only a few of these runs have been reducible in detail. Cross-coupling errors greater than 30 mgal were computed for heave accelerations of 80 gals but there was little correspondence between computed errors and observed errors except in mean amplitude and sign. The mean Askania errors for runs nos. 106, 107 and 108 were, respectively, +6.2, −24.5 and +11.8 mgal, while the computed cross-coupling effect was +33.0, −6.6 and +24.0 mgal. In addition, however, to the limiting of the heave accelerometer, it is likely that other disturbances were present at these high accelerations.

3.6 Correlation of LaCoste and Askania errors

Another aim of the test was to determine whether the presence of very low frequency components in the vertical acceleration spectrum was due to coupling effects between various motions of the ship. Since errors in the measurement of gravity due to such low-frequency acceleration would be about the same for each gravimeter, it was hoped to detect their presence by examining the correlation coefficient between Askania and LaCoste gravimeter errors. The coefficient is shown in Figure 5, where it is evident that the correlation is generally very high and positive. Errors in the determination of Eötvös correction, however, are also applied equally to each gravimeter, and this proved to be the dominating cause of high correlation. Sections of data with high correlation could invariably be associated with averaging errors caused by rapid changes in Eötvös correction. The covariance of the two sets of errors observed during a run was generally less than 2.0 mgal^2, but individual coherent errors were transitory and often exceeded 3.0 mgal. This further emphasizes the need to correct continuously for short-term variations in Eötvös effect by the use of course records or ship's-log data.

3.7 Conclusions

The Halifax Sea Gravimeter Testing Range proved to be well designed, and it is unlikely that more than a few tenths of a milligal error were introduced by uncertainties in position or as a result of gravity gradients. The range was close enough to Halifax for frequent base readings and yet in deep enough water for representative deep-sea conditions to exist; it was apparently free of anomalous ocean currents, and no interference due to shipping traffic was encountered. The range lines were long enough to obtain, for each run, statistically significant estimates of the mean and the standard deviation of the observed errors.

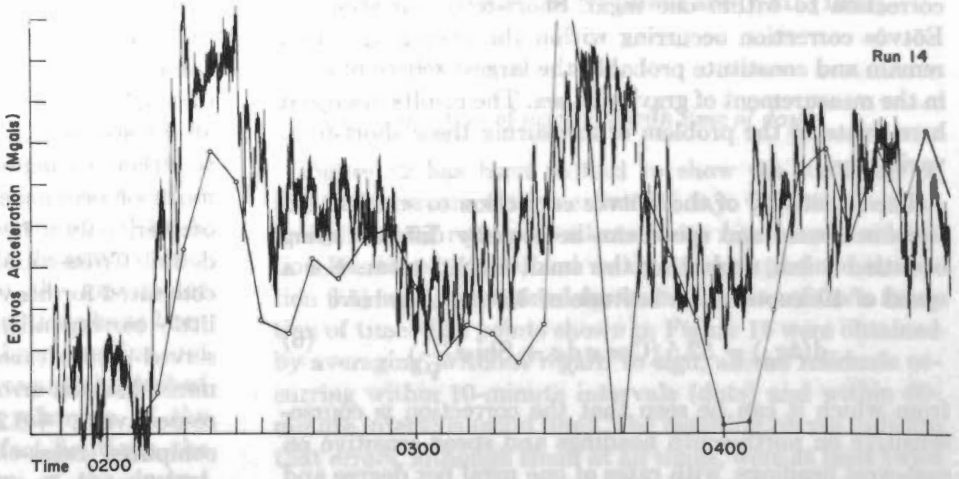


Figure 13.
Comparison of Eötvös correction computed from Decca readings (circles) and from course recorder (continuous line), run no. 14.

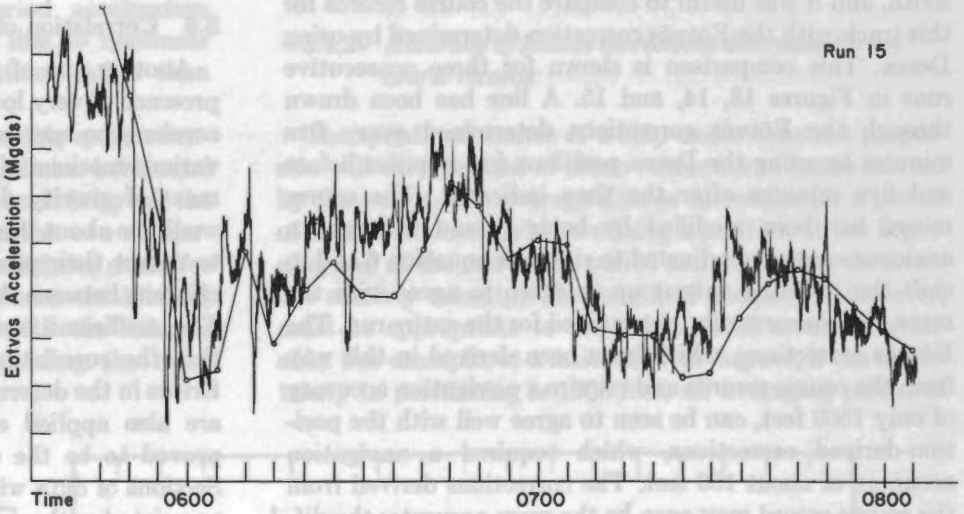


Figure 14.
Same as Figure 13, run no. 15.

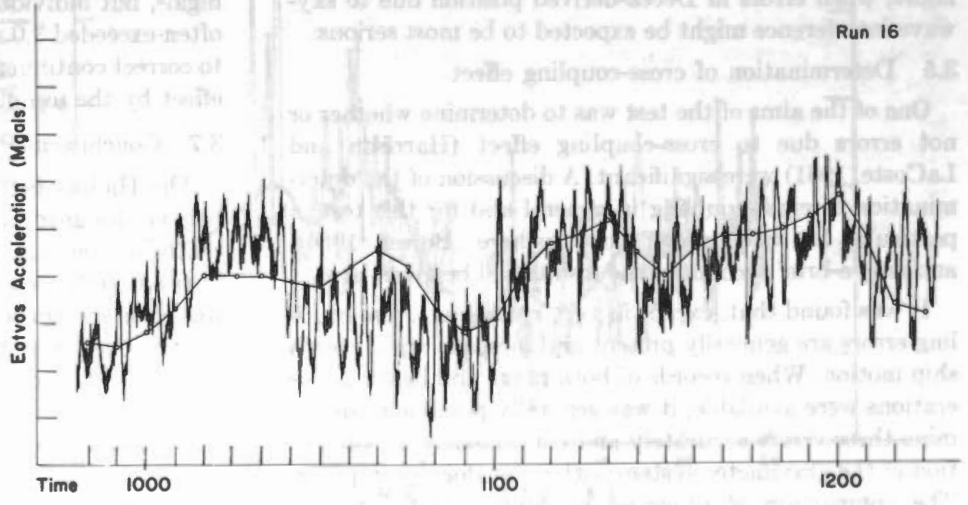


Figure 15.
Same as Figure 13, run no. 16.

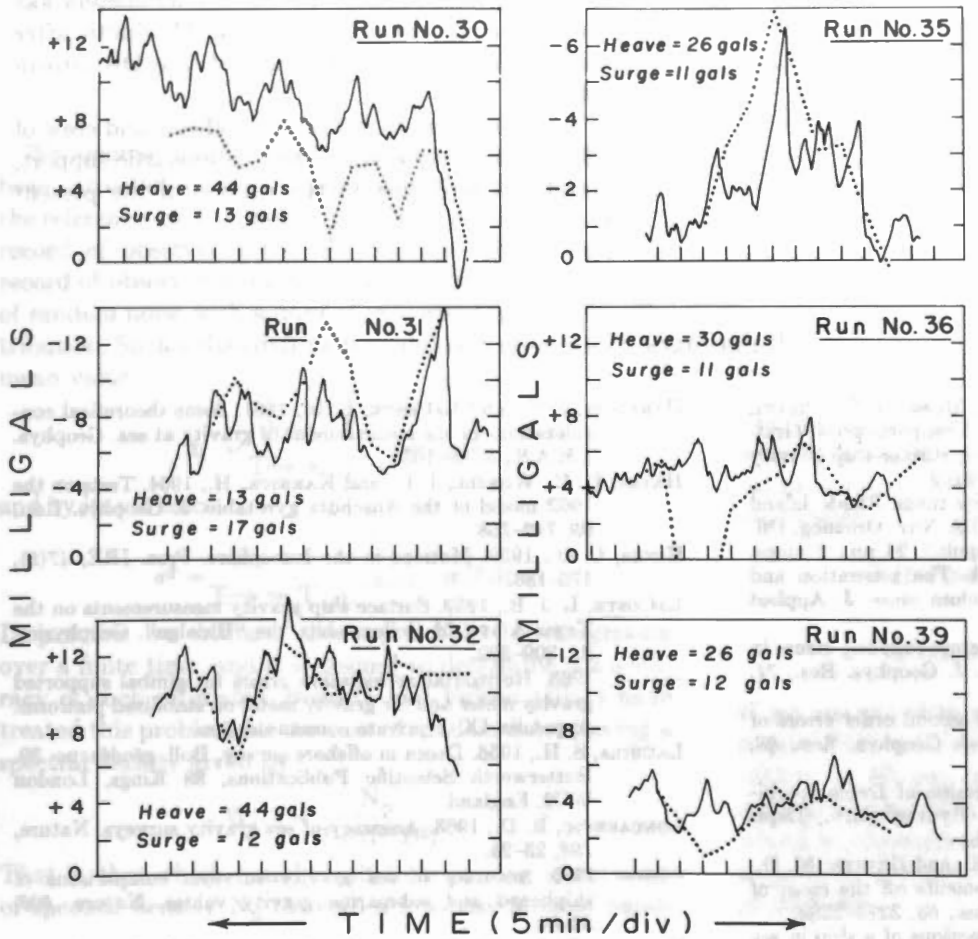


Figure 16.
Comparison of observed Askania gravimeter error (dotted line) and computed cross-coupling effect (solid line).

For the first 100 runs of the test—that is, not including the later runs influenced by the hurricane—the average magnitude of the mean errors was 3.2 milligals for the LaCoste results and 2.8 milligals for the Askania results. The average standard deviation was 2.2 milligals for the LaCoste results and 1.4 milligals for the Askania. The drift characteristic, however, determined by the regular dockside measurements, was negligible for the LaCoste and somewhat irregular over a 7-mgal range for the Askania. All the Askania results have been corrected to a smooth line drawn through this observed-drift characteristic. The most outstanding difference between the two instruments was with respect to performance under moderately rough conditions. Very few usable results were obtained from the LaCoste gravimeter when the rms vertical acceleration exceeded 30 gals, whereas the Askania system continued to produce accurate results, although with cross-coupling errors, at accelerations greater than 45 gals.

The better Askania performance, in all respects except drift, seems due both to the use of a gyro-stabilized platform and to the greater beam damping used in the gravimeter itself. The LaCoste beam occasionally hit its stops at rms vertical accelerations of 30 gals, and the gravimeter record even at small accelerations was 'noisier'. The most serious errors experienced with both gravimeters, however, under moderate sea conditions, were constant throughout an entire run rather than transitory or short-term. Thus both systems are subject to systematic errors.

Serious errors due to nonlinear response of the LaCoste gravimeter system to horizontal accelerations were observed and, in addition, some evidence of nonlinear vertical response. Errors due to cross-coupling effect were experienced with the Askania system, but these errors could be determined from the records of vertical and surge acceleration.

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APPENDIX I

Uncertainty in the Measurement of Mean Error and Variance

We assume that the observed gravimeter readings have been corrected for Eötvös effect and then compared with the reference-gravity measurements to obtain a continuous record of observed error. We assume further that this record of observed error, x(t) has the statistical properties of random noise with a normal (gaussian) probability distribution. Such a distribution is completely specified by its mean value

$$m = \lim_{T \to \infty} \frac{1}{T} \int_0^{\infty} x(t)\, dt$$

and by its variance

$$\sigma^2 = \lim_{T \to \infty} \frac{1}{T} \int_0^{\infty} [x(t) - m]^2\, dt$$

In practice we estimate these quantities by integrating over a finite time, and it is desired to determine the accuracy of such estimates. Bennett and Fulton (1951) have treated this problem for the case of random noise having a spectral density given by

$$W(f) = \frac{N_o}{1 + (f^2/B^2)}$$

That is, that which would result from passing white noise of spectral density N_o through a low-pass filter of bandwidth B cycles per second. The noise is considered to be superimposed on the constant mean value and is related to the variance by

$$\sigma^2 = \int_0^{\infty} w(f)\, df$$

$$\text{which yields } \sigma^2 = \frac{N_o B \pi}{2}$$

The integration time (record length) required to insure with 95-per-cent certainty that the estimated mean and variance fall within P per-cent of their true values is approximately

$$T \text{ (for mean)} = \left(\frac{4.0 \times 10^4}{\pi B\, p^2}\right) \left(\frac{\sigma^2}{m^2}\right)$$

$$T \text{ (for variance)} = \left(\frac{4.0 \times 10^4}{\pi B\, p^2}\right)$$

If we assume that $\sigma^2 = m^2$ and that $B = 1/600$ then the required times for estimates of both mean and variance to within $\pm$ 50 per cent is approximately one hour. For records two hours in length the accuracy of the estimates would be approximately $\pm$ 33 per cent. These times correspond to distances of 10 and 20 nautical miles at a speed of 10 knots.

APPENDIX II

Water-depth and Wind-fetch Requirements

The growth of ocean waves with increasing wind speed is characterized by a progressive increase in the total wave-motion energy, particularly at low frequencies, to a maximum determined by the depth of water and by the length of unobstructed sea surface (fetch) over which the wind is blowing. Since the presence of low frequencies in the wave spectrum is significant in the performance of gravimeter systems, the growth of ocean waves should not normally be restricted in the test area because of depth or fetch. Pierson *et al.* (1955) present graphs which show that the wave spectra of fully developed seas for wind speeds up to 17 knots will be the same as for the open sea if the fetch is greater than 50 nautical miles. For winds of 21 knots and 31 knots the required fetch is 100 and 300 miles respectively. As the wind speed is increased, however, it becomes increasingly less probable that the fully developed state will be reached. It becomes so, regardless of the fetch because of the required wind duration. This is 10 hours for 21-knot winds and 24 hours for 30-knot winds. Because of this a fetch somewhat less than 100 miles should not often restrict the growth of wind-generated seas.

A second consideration is swell. At least one quadrant of the test area should be open to swells generated at a distance and the depth should permit the lowest frequency components to be propagated without attenuation. According to Defant (1961), this depth may be taken to be $d = \lambda/2$ where λ is the longest wave length of significance. Wave length and period are related by the equation (Defant, 1961)

$$\lambda = gt^2/2\pi$$

So if the longest period of interest is 20 seconds, the corresponding wave length is 2060 feet and the required water depth for negligible attenuation is 1030 feet.

APPENDIX III

Parameters of Nova Scotia Chain

		MASTER	RED	GREEN	PURPLE
		Chester	Alma	Jordan Bay	Ecum Secum
Geographical coords.	Lat.	44°34′01.752″N	45°39′14.497″	43°42′10.408″	44°57′52.644″
	Long.	64°16′05.479″W	64°55′48.392″	65°14′27.818″	62°08′58.727″
Rectangular coords.	X	1 976 122.886	1 892 363.760	1 934 225.505	2 111 815.761
	Y	−4 100 252.665	−4 045 296.594	−4 193 938.303	−3 996 896.780
	Z	4 453 004.733	4 538 248.114	4 384 083.519	4 484 364.447
Baseline length (km)			131 540.15	123 624.46	173 436.28
Transmitted frequency		85.370	113.826	128.055	71.1416
Mark 5 Comparison frequency			341.480	256.110	426.850
Speed of propagation			299 700	299 420	299 360
Total number of lanes			299.755	211.485	494.597
Baseline lane width (m)				584.56	350.66

APPENDIX IV

Probability Function for Errors Due to Platform Levelling

The form of the probability density function of gravimeter errors caused by slowly varying, normally distributed platform-levelling errors about the roll and pitch axes will be derived here.

If the platform, initially level, is rotated through small angles γ_p and γ_r about the pitch and roll axes, the platform vertical will differ from the true vertical by (approximately)

$$\varphi = \left[\gamma_p^2 + \gamma_r^2\right]^{1/2}$$

The angle φ may be considered as the length of a vector defining the projection of the platform vertical on the true horizontal plane. The phase of this vector in the plane then is

$$\lambda = \tan^{-1}\frac{\gamma_r}{\gamma_p}$$

If γ_p and γ_r are independent gaussian random variables with zero means and variances σ^2, their joint probability density function is given by

$$p(\gamma_p,\gamma_r) = \frac{1}{2\pi\sigma^2} e^{\frac{-(\gamma_p^2+\gamma_r^2)}{2\sigma^2}}$$

We must have

$$p(\varphi,\lambda)\ \ d\varphi\, d\lambda = p(\gamma_p,\ \gamma_r)\, d\gamma_p\, d\gamma_r$$

and therefore

$$p(\varphi,\lambda) = \frac{p\,|\gamma_p,\gamma_r|}{|J|}$$

where we have used the absolute value of the Jacobian for the transformation of coordinates since the probability functions are positive quantities. Thus

$$p(\varphi,\lambda) = \frac{\varphi}{2\pi\sigma^2} e^{-\frac{\varphi^2}{2\sigma^2}} \quad \text{for } \varphi > 0 \qquad 0 \leqslant \lambda \leqslant 2\pi$$

$$= 0 \text{ otherwise.}$$

and further,

$$p(\varphi) = p(\varphi,\lambda)\, d\lambda = \frac{\varphi}{\sigma^2} e^{-\frac{\varphi^2}{2\sigma^2}} \quad \text{(Rayleigh distribution)}$$

The reading of the gravimeter, subject to a tilt of φ, is given by

$$R = g\,COS\varphi = g\left(1-\frac{\varphi^2}{2}\right)$$

Thus the error due to tilt is

$$\frac{\Delta g}{g} = \frac{-\varphi^2}{2}$$

We must have $p(\Delta g)\,d\Delta g = p(\varphi)\,d\varphi$

Thus

$$p(\Delta g) = \frac{1}{g\sigma^2}\,e^{+\frac{\Delta g}{g\sigma^2}} \text{ for } \Delta g < 0$$

$$= 0 \quad \text{otherwise.}$$

We can determine the gravimeter error Δg_o due to tilt, which is exceeded 50 per cent of the time, by integrating the density function.

Thus

$$0.5 = \int_0^{-\Delta g_o} p(\Delta g)\,d(\Delta g) = 1-e^{-\frac{-\Delta g_o}{g\sigma^2}}$$

Therefore

$$\frac{\Delta g}{g} = -0.69\sigma^2$$

Thus, for example, if $\sigma = 5.0$ minutes, the gravimeter error will be greater than 1.38 mgal 50 per cent of the time.