

RESIDENT ENGINEER

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David L. Narver, Jr.

Triangulation Survey

June 12, 1953

The field records and computations received to date indicate very good work and should result in a net which is well within second order tolerances. The records are being checked here as they are received and the following remarks are based on the information available here at this time.

The Coca-Fox-Oboe triangle has an error of closure of 5.6 seconds. As this error exceeds the allowable limit and is part of the primary net, additional observing to reduce the error of closure will be necessary. While the error could be at Oboe it is more probable that it will be found at Coca as the horizon closure at this station is large by approximately the same amount as the triangle closure. If reobserving Fox, N. How and Oboe from Coca reduces the error of closure below 5 seconds no further work should be done. All other triangles submitted so far are satisfactory. This includes station Salt or Sugar.

The following baseline records have not been received:

Field notes and computations Stations Smith to Roger.

Field notes Stations Piper to Fox.

These should be sent in immediately as no further computing or adjustment can be made until they are received.

It is satisfactory to locate stations Ren and Air by precise angle and distance ties from the baseline. Concluded triangles including these stations are not necessary.

The memorandum of 6-4-53, Curran to Dietze, mentions that the angles in this quadrangle are also scheduled. If this means observing a Salt-Piper-Oboe-Coca triangle it is necessary as the angles at Coca would be too small to give any conclusive check between the two sections of the baseline.

Location of the islands on the east reef from Nan to How will be required to third order accuracy. It appears practical to accomplish this survey by locating Mike by the triangle Mike-Nan-Oboe and then traversing from Mike to S. How. By this method the traverse is tied to a known station at each end and can be adjusted, eliminating the necessity for precise measurement. It should be satisfactory to use a 300 foot tape for this measurement which can be calibrated from the 100 standard tapes which are at the Jobsite.

A copy of a two page report on the U. S. Navy Survey at Bikini is enclosed which should be of interest. This report states that Stations Air, South and Enyu are

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SINGLE REVIEW AUTHORIZED BY: <u>AA Sussell 7-23-84</u>	
DETERMINATION (CIRCLE NUMBER(S))	
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2. CLASSIFICATION CHANGED TO:	
3. CONTAINS NO DOE CLASSIFIED INFO	
4. COORDINATE WITH:	
5. DECLASSIFICATION CANCELLED	
6. CLASSIFIED INFO BRACKETED	
REVIEWER (ADD):	NAME: <u>J. D. Grogan</u>
DATE: <u>7/29/94</u>	

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common to both the Summer and the Bowditch Surveys. As the observation point cannot be recovered it is planned to use these stations as the origin of geographic position and azimuth for our survey. They should be tied to the closest station of the new survey by precise angle and distance and it is desirable that this work be completed as soon as possible. This information is required to complete the computation and adjustment of the primary net and is of higher priority than location of the third order stations.

At the time the local triangulation survey in the Dog-George area is made, U. S. Navy Stations Mon and Gell should be tied in to this survey. This will provide an additional check between the surveys and will be of value in determining the equation between the preliminary coordinates and the final adjusted grid.

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