

**DET 1ST TOPOGRAPHICAL SURVEY TROOP
OPERATION ORDER 1/66**

ANNEX A — Det 1st Topographical Survey Troop, Operation Order 1/66

One of thirteen annexes (A–M) to “War in Vietnam: A Surveyor’s Story”, by Lieutenant Colonel Robert Francis Skitch (Retd), 1934–2026 — Officer Commanding, Detachment 1st Topographical Survey Troop, Nui Dat, 1966–67.

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DET 1ST TOPOGRAPHICAL SURVEY TROOPOPERATION ORDER 1/66(Issued 12 June 1966 - connexion to Nui Dat)(scanned and transcribed from original)

1.SIT

Svy party 1 will comprise the following personnel:

Sgt S.R. CAMBELL

Cpl J.L. ROBERTS

Spr B.W. FIRNS

The party will be augmented by the following members of TF Loc Tp.

1731045 L/Bdr J.F. Selwood

3787005 Gnr J.L. Roberts

Gnr V.A. Moreau

3787689 Gnr D.P. McManus

Svy party 2 (-) will comprise the following personnel:

214295 Cpl D G P CERUTI

311459 Spr J A O'CONNOR

2.MSN

Det 1 Topo Svy is to establish a 3rd Order Position and azimuth on the feature NUI DAT GR 433 675.

3.EXEC

a. General outline

NUI DAT is to be co-ordinated by tellurometer measurement and angle observation from the 1st order point "NOUVEAU PHARE CAP ST JACQUES" GR 279 428. In carrying out this task, the reliability of the control point is to be tested by connexion between three known control points in the VUNG TAU area and by the introduction into the observed figure of astronomical azimuths.

b. Organisation

Svy party No 1 with Sgt CAMPBELL NCO I/C will carry out all necessary survey south of grid line N1,150,000. Elms of Svy Party No 2 will carry out all necessary survey north of grid line N1,150,000.

c. Tasks

The following tasks will be carried out at the stations listed

(1) NOUVEAU PHARE CAP ST JACQUES (light house)
GR 279 428.

(i) Establish eccentric positions near base of lighthouse.

(ii) Measure circumference of lighthouse at height of theodolite.

(iii) Determine and mark centre of lighthouse, radial to theodolite, by bisecting the angle between the targets from the instrument position to the lighthouse.

(iv) Measure the distance from the eccentric to the position marked.

(v) Measure the following distances by tellurometer:

Ecce....CAP ST JACQUES (20 fine readings)

Ecce....THANH ecce (10 fine readings)

Ecce....NUI DAT (20 fine readings - both directions)

(vi) Observe the following directions from ecce positions.

CAP ST JACQUES (8 arcs)

NUI DAT (8 arcs)

THANH ecce (4 arcs)

Lighthouse centre point (2 arcs)

(vii) Observe the following vertical angles from the ecce position.

CAP ST JACQUES (4 FL and 4 FR) reciprocal

NUI DAT (4 FL and 4 FR) simul reciprocal

THANH ecce (4 FL and 4 FR) single direction

(2) CAP ST JACQUES 3rd order station GR 287 419.

(i) Clear ground mark and check recovery marks.

(ii) Measure the following distances by tellurometer.

Lighthouse ecce 20 fine readings

NUI DAT 20 fine readings both direction

THANH ecce 10 fine readings

VUNG TAU azimuth Mk 5 fine readings

(iii) Observe the following directions.

Lighthouse 8 arcs

Lighthouse ecce 4 arcs

NUI DAT 8 arcs

VUNG TAU azimuth mark 8 arcs

THANH ecce 4 arcs

(iv) Observe the following vertical angles;

Lighthouse ecce 4 FL and 4 FR
reciprocal

NU1 DAT 4 FL and 4 FR simul
reciprocal

THANH ecce 2 FL and 2 FR single direction

Azimuth Mk 2 FL and 2 FR single
direction

(3) THANH 3rd order station

(i) Establish THANH 3rd eccentric west of road
to enable intervisibility to lighthouse and CAP
ST JACQUES.

(ii) Measure the following distances by
tellurometer (remote only).

Lighthouse ecce 10 fine readings

CAP ST JACQUES 10 fine readings

(4) VUNG TAU azimuth station.

(i) Establish station in convenient locality
in ALSG area.

(ii) Observe either of the following Astro
observations using red light on Radar Hill
as RO

(a) 8 arcs on polaris or

(b) 6 arcs W and 6 arcs E Ex meridian
observation on star within 15 degrees of
prime vertical

NOTE (a) is preferable to (b).

(iii) Observe angle between RO and CAP ST
JACQUES.

(5) NUI DAT 3rd order Artillery station.

(i) Adequately clear and establish station

at highest point of feature to be groundmarked with RA Svy plaque set in concrete.

(ii) Measure the following distances by tellurometer.

Lighthouse ecce 20 fine readings reciprocal.

CAP ST JACQUES 20 fine readings reciprocal

Arty orientation Pt 10 fine readings single direction.

(iii) Observe the following directions:

Lighthouse 8 arcs

CAP ST JACQUES 8 arcs

Arty orientation Pt 4 arcs

(iv) Observe a sun azimuth (AM and PM) on the line to Lighthouse.

d. Barometer Calibrations.

NCO I/C of party (1) will endeavor to calibrate barometers at NUT DAT on return.

Note :- in calibration, sea level correction not to be applied.

e. Technical specifications

All survey tasks will be carried out in accordance with RA Svy practice as specified in Corps Manuals, unless otherwise directed by OC Det.

f. Recording - To be carried out in duplicate.

g. Timings

(1) Party No 1.

(i) Tue 14 Jun 66

(a) Depart TF area NUI DAT (time to be notified)

(b) Report to HQ ALSG on arrival VUNG TAU.

(c) Establish and observe Azimuth Station. To be carried out on following nights in area if nec.

(ii) Wed 15 Jun 66

(a) Establish liaison with US Advising Team at Vung Tau and obtain clearance to proceed to Lighthouse and CAP ST JACQUES Trig,

- (b) Establish and measure ecce at lighthouse.
- (c) Recover and clear ground mark at CAP ST JACQUES.
- (d) Establish and measure ecce at THANH.
- (e) Measure all angles and distances in the figure lighthouse - CAP ST JACQUES - THANH.
- (f) Measure distance CAP ST JACQUES to Azimuth Mk

Note:- Carry over of tasks of Wed to be carried out on Fri 17 Jun 66 if necessary.

(iii) Thu 16 Jun 66.

- (a) Occupy Lighthouse ecce and observe and measure to NUI DAT including verticals.

- (b) Occupy CAP ST JACQUES and observe and measure to NUI DAT.

Call up time for measurement 0900 at Lighthouse

(iv) Fri 17 Jun 66
Complete outstanding work

(v) Sat 17 Jun 66
Return NUI DAT

(2) Party no 2

(i) Tue 14 Jun 66.

- (a) Clear and ground mark NUI DAT.
- (b) Check tellurometer systems

(ii) Wed 15 Jun 66

- (a) Observe sun as azimuths at NUI DAT

(iii) Thu 16 Jun 66

- (a) Carry out all observations and measurements at NUI DAT

(iv) Fri 17 Jun 66

Nil

(v) Sat 18 Jun 66

- (a) Computations

4. ADM and LOG
a. Transport:

Svy party No 1 augmented by personnel from TF LOC TP will take the following vehicles

Trucks $\frac{3}{4}$ ton GS 113 130	1 Topo Svy Tp
Trl $\frac{1}{2}$ ton cargo	1 Topo Svy Tp
Truck $\frac{3}{4}$ ton GS	TF Loc Tp
Trl $\frac{1}{2}$ ton cargo	TF Loc Tp

Party to travel with convoy NUI DAT - VUNG TAU as directed.

b. Rations and quarters:

(i) NCO/1C Party No 1 to report to HQ ALSG for direction on rationing and quarters. Party No 1 to carry normal accommodation stores including tent Lt wt 11'x11'
tent Lt wt 7'x7'

c. Weapons and Ammunition

(i) All personnel involved will carry personal weapons at all times. States of readiness as follows:-

(a) In secured areas and VUNG TAU township, empty mag on, full mag in pouch

(b) In unsecured areas and including travel between NUI DAT and VUNG TAU and whilst working in THANH locality; full mag on - working parts forward.

(c) Ammo as follows will be carried

SLR 120 rounds

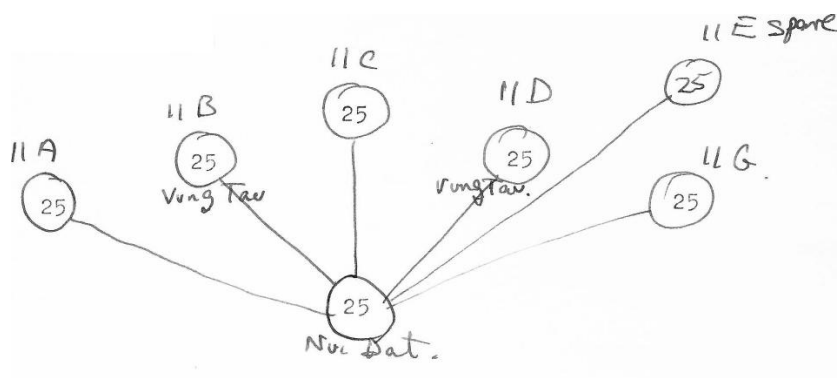
OMC 180 rounds

d. Stores and equipment

All stores and equipment other than compasses, prismatic, binoculars and watches will be issued on AAF F95. The articles mentioned are to be issued on AAF F12 to members nominated by NCO I/C.

5. COMD AND SIG

a. Call signs



b.

Frequency 62.5 mcs

c. Call words

13/14	GOLF	ZULU
15/16	VICTOR	WHISKEY
17/18	PAPA	ROMEO
19/20	KILO	OSCAR

d. Nick names

Light house	BRICK BAT
NUI DAT	SHORT LEG
CAP ST JACQUES	HOCKEY BALL
THANH	PIANO STRING
AZIMUTH STATION	FINE DAY
STA P	HOT COCOA
STA Q	WET CHEESE
105 Bty DIRECTOR	LONG POLE