

# **SITE SURVEY PROCEDURES AND QUESTIONNAIRE**

## **TECHNICAL SITE SURVEY PROCEDURES AND QUESTIONNAIRE**

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(Site Name)

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<b>POST INFORMATION:</b>		
<b>A. General Information</b>		
NAME OF POST:		DATE OF SURVEY:
TYPE OF POST: FOB          BASE		OTHER (SPECIFY)
TYPE OF SURVEY  Relocation      New Installation      Upgrade		OTHER (SPECIFY)
<b>B. Customer</b> (Indicate as applicable)		
Unit		Hq/Command
Engineering		Operations
<b>C. Site Survey Team Members</b>		
NAME	AFFILIATION	PHONE NUMBER
<b>D. Site Personnel</b>		
NAME	AFFILIATION	PHONE NUMBER
<b>E. GENERAL SITE INFORMATION</b>		
LONGITUDE:		LATITUDE:
ELEVATION:		MAGNETIC DEVIATION
ALTITUDE:		CORROSION SOURCES (DUST, SAND, SALT, OTHER)
TEMPERATURE RANGE (HIGH AND LOW)		ANNUAL RAINFALL AND SNOWFALL:
ICING CONDITIONS (SEVERE, MINIMAL, NONE, etc...):		AVERAGE HUMIDITY:
F: Site Test Equipment (Model Number & Nomenclature) (Indicate whether Customer or Contractor furnished)		DVM
SPECTRUM ANALYZER:		POWER METER:
DATA TEST SET:		OTHER:

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<b>G. Customer Responsibilities</b> <ol style="list-style-type: none"> <li>1. Customer will furnish all supplies/materials/capacity for post/shore primary AC power to earth station including junction box(es)</li> <li>2. Customer will supply/install/terminate all fiber and any other IFL (TCF – Earth Station) telephone/data/M&amp;C lines, including junction box(es)</li> <li>3. Customer will supply all necessary materials and perform installation of ground system, to include generator and lightning safety grounds.</li> <li>4. Customer will supply all materials and perform all installation activities for antenna pad/mount.</li> </ol>	
<b>H.</b> <ol style="list-style-type: none"> <li>1. Rockwell Collins will be responsible for supplying the equipment shelter, satellite antenna(s) and all electronic equipment and documentation in accordance with the purchase order/SOW.</li> <li>2. Rockwell Collins will provide technical personnel for earth station installation, testing and operation.</li> </ol>	
<b>I. REQUIRED DRAWINGS (to be done on-site)</b>	
(INDICATE DIMENSIONS of pad/antenna mount, distance to customer facility, entire site layout. Recommended pad size for full DKET is 40ft x 40ft, 18” depth, concrete spec is 3000psi, 2 layers of 10mm rebar. (Pad size for DKET LITE is 34ft x34ft, minimum, concrete specs same as full size DKET)	
Proposed location of satellite antenna.	
IFL signal/fiber line runs from satellite earth station to/from customer premises, type, nr of pairs, length, junction box(es) etc. Fiber interface DKET – TCF normally supplied is Canoga Perkins model 2270. (usually 8ea) multimode FOMs using LED’s. There may be occasions in which only single mode fiber will be furnished, in such cases, single mode (Laser) FOMs must be used. In any case, the fiber run, whether it is single or multimode will consist of a minimum of 12 prs. (Depending on final capacity/configuration, additional prs may be required/installed) Fiber junction box will be located at edge of pad closest to entry point of earth station shelter.	
Current electrical line runs in proximity to proposed earth station location.	
Proposed ground field specifications, location and connection points.  Ground system recommended is ring ground, 0000 stranded, minimum 18” below grade, with 4ea 00 pigtailed, each corner, minimum 8ea 3 meter Copperweld ground rods. Ring ground to be Cadwelded to ground rods. Ground spec is <5 Ohm. (Or in accordance with customer’s plant specification) Generators will have separate safety ground. (1ea 3 meter ground rod, 00 pigtail) Lightning ground will also be separate, 1ea 3 meter ground	

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rod, with minimum 0 AWG stranded as download.
<b>J. PHOTOGRAPHS (Proposed and alternate where applicable)</b>
Antenna Location.
Panoramic-satellite look angle arc, take pictures from proposed antenna site. (Take photo of operational satellite look angle if known)
Customer building/facility.
Other site specifics as required, ie road access, etc.
NOTE ALL LOOK ANGLE OBSTRUCTIONS; LIST TREES, ANTENNAS, WALLS, PRESENT/PROPOSED BUILDING CONSTRUCTION, ETC. AND DISTANCE/HEIGHT OF OBSTRUCTION. LOOK ANGLE SHOULD HAVE 10 TO 15 DEGREES OF CLEARANCE FOR ZERO INCLINED SATELLITES.
<b>K. POSSIBLE INTERFERENCE SOURCES</b>
LIST DIRECTION/APPROXIMATE DISTANCE OF ALL POSSIBLE HIGH POWER RF INTERFERENCE SOURCES (AM, FM, TV, MICROWAVE, UHF, POWER LINES, ETC.)
LIST ALL known MICROWAVE/RADAR SOURCES OF INTERFERENCE INCLUDING OPERATING FREQUENCIES, TYPE OF ANTENNA, AZIMUTH OF RF MICROWAVE PATHS, TRANSMIT POWER/OWNERSHIP/USER IF OBTAINABLE. PERFORM FREQUENCY SPECTRUM SURVEY if required.
LIST AIRCRAFT TRAFFIC WITHIN CLOSE PROXIMITY OF LOOK ANGLE:
ARE THERE RECEIVING STATIONS WITHIN CLOSE PROXIMITY OF THE LOOK ANGLE?
ARE THERE ANTENNAS IN CLOSE PROXIMITYWHICH MAY CAUSE RF INTERFERENCE?
ARE THERE ANTENNAS IN CLOSE PROXIMITY WHICH MAY EXPERIENCE RF INTERFERENCE FROM THE SATELLITE ANTENNA?
IS IT ANTICIPATED THAT THE SYSTEM WILL BE RELOCATED IN THE FUTURE?
EXPECTED DATE OF INSTALLATION/ACTIVATION:
EXPECTED DURATION OF INSTALLATION
EXPECTED TERMINAL TYPE: Full DKET/DKET LITE or?
INITIAL TERMINAL CAPABILITY (Qty of FDM/TDM modems)
<b>L. FINAL REVIEW: SITE SURVEY SHOULD BE DETAILED TO INCLUDE THE FOLLOWING INFORMATION:</b>
A. Satellite Look angles – List commonly used satellites that can be accessed from proposed location
B. Determine how antenna will be mounted ie concrete pad or?
C. Length of IFL run.
D. Any sources of interference.
E. Electrical power capability. Describe customer provided availability, stability, frequency, phase and voltage.
I. Any problems that may arise with regard to IFL run, power runs, and signal runs to customer.

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**M. NOTES (USE ADDITIONAL PAGES AS REQUIRED)**

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**APPROVALS/AUTHORIZATIONS**

\_\_\_\_\_  
PRINTED NAME

\_\_\_\_\_  
PRINTED NAME

\_\_\_\_\_  
DELEGATED Unit REPRESENTATIVE / DATE

\_\_\_\_\_  
FIELD ENGINEER, Rockwell Collins/ DATE