

NTIA Additional Fields
BlackKnight-1

1.) Nongeostationary

B.) 40.5° inclination, 500 km apogee, 500 km perigee, 1.5 hour period,
1 satellite

2.) 2.51 dB antenna gain, 360° beamwidth

3.) EC

4.) 13.36 dB antenna gain, 30° beamwidth, 0–360° azimuth range, site
46 m above sea level, 6 meter antenna height above terrain

5.) 0° minimum elevation

6.) S871

7.) Right hand circular transmit orientation, right hand circular
receive orientation

1.) THE TYPE OF SATELLITE, GEOSTATIONARY OR NONGEOSTATIONARY, (XAL
AND/OR RAL).

B.) IF ANY SATELLITES ARE NONGEOSTATIONARY, REPORT ITS INCLINATION
ANGLE, APOGEE IN KILOMETERS, PERIGEE IN KILOMETERS, ORBITAL PERIOD IN
HOURS AND FRACTIONS OF HOURS IN DECIMAL, THE NUMBER OF SATELLITES IN
THE SYSTEM, THEN T01, EXAMPLE, REM04 *ORB,
98.0IN00510AP00510PE001.58H01NRT01, AND FOR SPACE-TO-SPACE
COMMUNICATIONS WITH ANOTHER NONGEOSTATIONARY SATELLITE ADD AN
ADDITIONAL *ORB FOR IT ENDING IN R01, EXAMPLE, REM05 *ORB,
72.9IN03209AP00655PE013.46H01NRR01

2.) THE SATELLITE TRANSMITTER ANTENNA GAIN AND BEAMWIDTH (XAD),
EXAMPLE, XAD01 16G030B

3.) THE SATELLITE TRANSMITTER ANTENNA AZIMUTH (XAZ), NARROWBEAM, NB,
EARTH COVERAGE, EC, EXAMPLE, XAZ01 EC OR LEAVE BLANK FOR SPACE-TO-
SPACE OPERATIONS.

4.) THE EARTH STATION RECEIVER ANTENNA GAIN, BEAMWIDTH, AZIMUTHAL
RANGE, THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS AND THE
ANTENNA HEIGHT ABOVE TERRAIN IN METERS (RAD), EXAMPLE ASSUMING
NONGEOSTATIONARY, RAD01 16G030B000-360A00357H006

5.) THE EARTH STATION RECEIVER ANTENNA AZIMUTH (RAZ), THE MINIMUM
ANGLE OF ELEVATION, V00 TO V90, EXAMPLE, RAZ01 V00

6.) THE S NOTE (ASSUMING NONGEOSTATIONARY, USE S871--THIS ASSIGNMENT SUPPORTS OF THE NON-GEOSTATIONARY CUBESAT TEST BED (CSTB) SATELLITE).

7.) THE TRANSMITTER ANTENNA ORIENTATION (XAP), EXAMPLE XAP01 J , AND THE RECEIVER ANTENNA ORIENTATION (RAP), EXAMPLE RAP01 J , WHERE J REPRESENTS LINEAR POLARIZATION. OTHER POLARIZATIONS INCLUDE H FOR HORIZONTAL, V FOR VERTICAL, S FOR HORIZONTAL AND VERTICAL, L FOR LEFT HAND CIRCULAR, R FOR RIGHT HAND CIRCULAR, T FOR RIGHT AND LEFT HAND CIRCULAR, E FOR ELLIPTICAL AND O FOR OBLIQUE ANGLED CROSSED.
