

1. The overall.....in this field. Wide geographical coverage should be provided, particularly in areas not accessible to conventional elint resources. A long life (6-12 months in orbit) is required with high probability of intercept on target signals. The system must be free of false indications of any signal parameter, particularly that of radio frequency band.

2. In any.....requirement, a general search capability from the MUF to at least 15 Gc/s should be available. Selected spectral regions of high intelligence interest should be maintained in orbit available for exploitation at all times. This general....and negative data. (The system must be free of all artifacts). The frequency of exploitation will vary with the international situation, other intelligence knowledge and other requirements at the time.

Current priority frequency spectral interest is as follows, but is subject to change based on future intelligence and mission results.

150-200 Mc/s  
 550-1000 Mc/s  
 2600-5200 Mc/s  
 200-550 Mc/s  
 5250-9500 Mc/s  
 1000-2650 Mc/s  
 9500-15,000 Mc/s  
 80-150 Mc/s  
 MUF to 80 Mc/s  
 Above 15 Gc/s at atmospheric windows

(Note, a substantial portion of the frequency region below 100 Mc/s is severely cluttered with TV and FM broadcast stations, and this part of the spectrum is of comparatively low elint priority- neglecting telemetry and communications systems)

ADD: The collection system must be ~~adequate to search geographically~~ orbited so that, at whatever altitude, consecutive passes should provide continuous consecutive geographic over the entire surface of the earth without gaps.

The general search capability should be able to supply information within the following tolerances:

- a. Target signals should provide a 15 db signal to noise ratio from any emitter with an antenna gain of ~~20~~ at least 20 db ~~from any emitter~~ with peak pulse power of 250 kw at 3000 Mc/s (s-band) linearly decreasing to 80 kw at 9500 Mc/s (X-band)
- b. OK
- c. PRF measurements are desired within 2%. At rates up to 5000 pps; above that value accuracy of 10% is sufficient
- d. OK
- e. DROP  requirement.
- f. On selected signals, beam width measurements within 50 should be possible
- g. PLACE HIGHER IN LIST/ - The  scan rate must be measured within 10%

HANDLE WITH CARE  
 CONTROL SYSTEM

Recognition of and some form of measurements on scan modes other than circular and sector should be possible.

(h) ~~Time drop, improper~~  ly as means to end or correlation with other simultaneous data.

i. OK

~~TOP SECRET~~

HANDLE VIA  
BYEMAH  
CONTROL SYSTEM ONLY