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sp?

*of the Setter*  
*Multigroup type.*

Interferometer satellite collection Systems  
(1) the antenna system on this type collection system must be extremely large for use at the lower end of the frequency spectrum so its usefulness will be relegated to the microwave regions. ~~The~~

*in practice*

(2) the antenna <sup>and RF portions of the</sup> system will inherently be narrow band and cover only narrow portions of the overall <sup>frequency</sup> spectrum.

(3) The fact that it looks only downward at the emitters means that it does not see the main beam but ~~only~~ the side lobes of the emitters. Thus the emitter antenna scan characteristics are lost ~~to~~ <sup>to</sup> this collection system. (X)

(4) This system depends to a great extent on the orientation of a stabilized platform, a requirement which is usually available for relatively short periods of time (several weeks) and is very costly in terms of sophisticated hardware in orbit.

(5) Onboard data processing and recording has a history of routinely presenting false data through modulation cross products <sup>is reduced,</sup> or other system generated spurious responses...thus the confidence factor <sup>is reduced,</sup> on any but ~~real-time,~~ transponded data. ~~xxxxxx~~

(\*) *This is one of the most valuable identification characteristics for determining the mission of the emitter. For example, Height <sup>radar antennas</sup> ~~indicates~~ move up and down, E/W <sup>types</sup> ~~move~~ in azimuth and the missile control <sup>type</sup> ~~occurs~~ in a tight sector.*

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Collection system (Exemplified by POPPY):

(1) In this collection system the limitation of average power ~~consumption~~ available, imposes severe restraint on use of any but the ~~most~~ simple ~~and~~ ~~reliable~~ intercept systems.

(2) The long life ~~goals~~ <sup>demonstrated by</sup> required for this type of collection system impose a severe penalty on reliability <sup>through guaranteed</sup> ~~requires an entirely different~~ <sup>at overall reliability than that for short-lived systems.</sup>

(3) The requirement for ~~analysis~~ <sup>components of similar measured performance in space</sup> analysis require ~~highly duplicative instrumentation and~~ in the payloads as well as on the ground.

(4) Sensitivity is restrained to avoid intercept of the minor lobes of the emitter antenna pattern, thus also <sup>limiting the</sup> ~~avoiding~~ intercept of weaker emitter minor-lobes.

(5) While many collection bands are contained in a single payload, only 4 per satellite can be utilized at any given time. <sup>many</sup> ~~but~~ collection systems can use only one band at a time.

\* Sensitivities in K-Band are above -80 dbm while <sup>in</sup> S-Band and below <sup>the system sensitivities</sup> are ~~switchable~~ <sup>selectable at</sup> either -54 dbm or -65 dbm.

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