## I.    BACKGROUND

5.  GCHQ currently owns three sites that are involved in COMSAT access: CARBOY, SOUNDER and SNICK. These three sites have a wide variety of different ages and types of deployed antennas, at various stages of their operational lifetime. This large installed asset base represents a considerable past investment and requires a continuing investment in maintenance and support.

6.  New assets have generally been added without decommissioning older ones, increasing maintenance and support costs. In the current economic climate, this must be set against reduced future support budgets. One of the key drivers for this strategy work is to reduce the total cost of ownership (TCO) of the asset base, whilst at the same time supporting expansion of collection ability.

7.  Current projects, such as Torus, which provide new capabilities and may reduce support costs, must be taken into account by the strategy.

8.  Historically, NSA has been a large source of funding for COMSAT. Many current COMSAT assets were purchased by NSA and are supported by GCHQ under the Echelon Agreement. It is therefore essential that NSA agree that the approach taken by the Antenna Strategy is correct. In addition, there is an NSA initiative to 'Access It All', the details of which are currently under discussion.

9.  Another factor that must be taken into account is changing technology within the commercial COMSAT world. An example is the utilisation of new frequency bands.

10. Many large COMSAT procurement projects were initiated in the past primarily because money had become available for use rather than because they were strategically planned. They also often focused on buying the newest technology, rather than the technology that would give the best value for money to the business. There is a clear need to direct funding so that it is used in a way that provides the most cost effective long term contribution.

11. The SHAREDVISION Programme (SV), a 5-EYES COMSAT architecture modernisation programme, has recently come to an end. It included many aspects of COMSAT infrastructure, but did not deal with antennas specifically. Its follow-on, SHAREDQUEST, is currently being defined, along with CONVERSION QUEST – a part of SHAREDQUEST relating to antenna command and control. These programmes reflect the importance of COMSAT as an access with global reach and the ability to provide unique intelligence.

12. The aim of this COMSAT Antenna Strategy is to provide direction for front-end collection that is consistent with the Access Strategy (Ref [c]). It should reduce the TCO of the COMSAT antenna asset base, whilst providing the capability to support more missions and counter the emergence of new technologies. The strategy should also underpin the business cases that justify long-term resourcing and budget planning for associated product centres and support services.

**SECRET**