Demand Access Multiple Access(DAMA):

- DAMAcan be used in any satellite communication link where traffic from an earth station is intermittent.
- Demand access allows a satellite channel to be allocated to a user on demand, rather than continuously, which greatly increases the no. of simultaneous users who can be served by the system.
- Most SCPC – FDMA system uses demand access to ensure that the available bandwidth in a transponder is used as fully as possible.

- Demand access systems require two types of a channel: a common signaling channel(CSC) and a communication channel.
- A user wishing to enter the communication network first calls the controlling earth station using the CSC, and the controller then allocates a pair of channels to that user.
- The CSC is operated in RA mode.
- The CSC are located at the ends of the transponder bandwidth.
- When earth station wants to access the satellite, it transmits a control packet to satellite on the CSC Frequency & waits for a reply

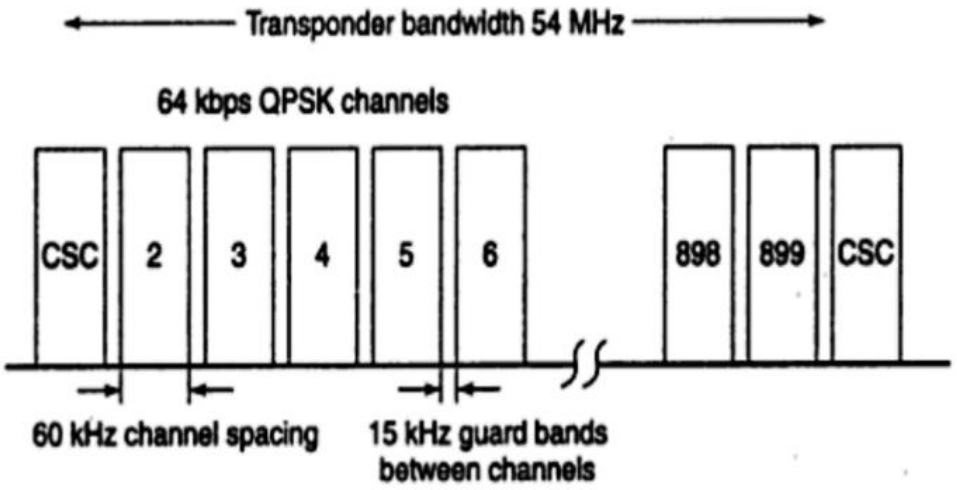

FIGURE 6.11 Frequency plan for a 54-MHz transponder carrying 900 demand access channels. Each channel has an occupied RF bandwidth of 45 kHz and carries one 64-kbps signal. Channel 1 and channel 900 are common signaling channels (CSC) used by the demand assignment system to set up access to the other 898 channels.

- The control packet is received by the hub earth station and decoded.
- The control packet contains source addr. &destination addr., also it includes cyclic redundancy check (CRC).
- The control station measures duration of the connection in order to generate billing data.