

QUESTION 7: PURPOSE OF EXPERIMENT

The purpose of this experiment is to evaluate the use of the low frequency band and minimum shift keying (MSK) modulation for the purpose of emergency communications. The pervasiveness of the signal, a characteristic of low frequency transmission, and the robust characteristic that a MSK modulated signals enjoy, are believed to make such a transmission very effective for a regional, between 20 to 200 miles, emergency communications. In our experiment we would like to study the above described transmission to support the designing and developing of:

- Techniques in the analog and the digital domain for improved methods of low signal-to-noise ratio.
- Small, highly efficient, orientation independent receive low frequency antenna.
- Simpler and low-power consumption receiver.