Fixed and Mobile Satellite Network

Lecture 10

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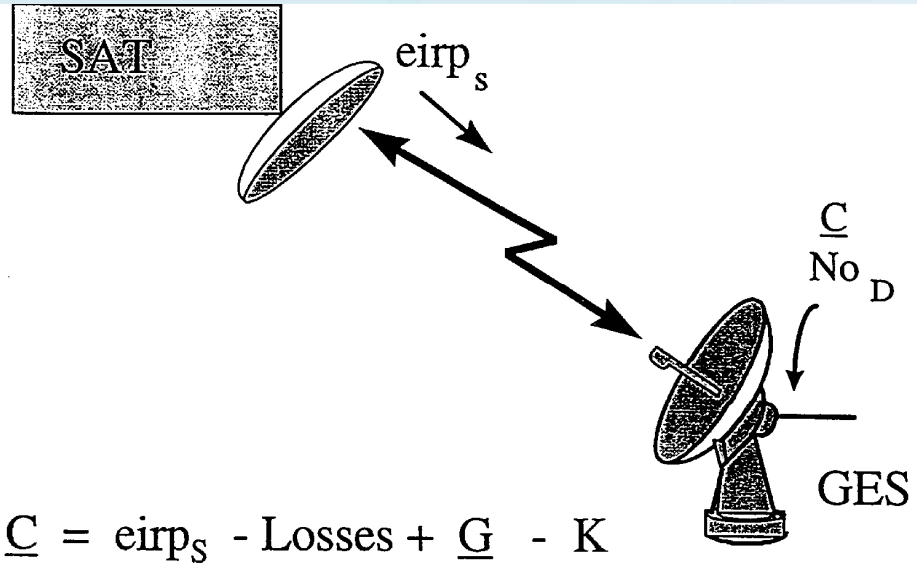
DOWNLINK



$$\frac{C}{No_D} = eirp_S - Losses + \frac{G}{T_{GES}} - K$$

$eirp_S$ = Gain Sat Ant Tx (dBi) + HPA_{SAT} power (dBW)

Losses = fixed losses + channel losses (%)

Fixed Losses = Free Space Loss + Pointing Losss

Channel Losses = Rain Loss (%)

$$\frac{G}{T_{GES}} = \text{(Gain GES dish) dBi - 10 Log (GES Noise temp) dBK}$$