Looking into possible conversions of PM into AM due to off-optimal setting of the SB frequencies. When we look into the power transmission of a cavity:

$$I_{\text{transmitted}} = I_0 \frac{1}{1 + F * \sin^2(\frac{\delta}{2})} \tag{1}$$

with

$$\delta = 2\pi \frac{\Delta s}{\lambda} + \Delta\phi \tag{2}$$

We can then express off-optimal SB frequencies ($\Delta f \neq 0$) in terms of $\Delta\phi$: The phase that the off-optimal SB accumulates with regard to the optimal SB.

$$\Delta\phi = \frac{\omega}{c} L = \frac{2\pi(1\,\text{kHz})}{3\text{E}8\,\frac{\text{m}}{\text{s}}} 21.2\,\text{m} \tag{3}$$

For a finesse $F = 1548$ this leads to

$$\Delta I_{\text{transmitted}} = 0.0002476 I_0 \frac{\Delta f}{1\,\text{kHz}} \tag{4}$$

Now all the power here is from the 11 MHz SB ($m_{\text{PM}} = 0.17$) => $m_{\text{AM}} = 0.17 * 0.0002476 = 4.21\text{E} - 5$. Also we learn

$$\frac{m_{\text{PM}}}{m_{\text{AM}}} = \frac{0.17}{0.0002476} = 4039 \frac{1\,\text{kHz}}{\Delta f} \tag{5}$$