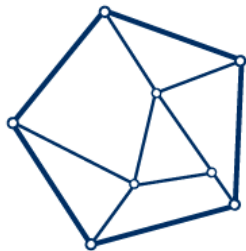


# FM Radio from the Mo

## Ben McKinley



<http://mobro.co/benmckinley>



**CAASTRO**  
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Australian  
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University

# FM Radio from the Moon

## Ben McKinley





Address: ☆ ✕

Nowhere, middle of

[Directions](#) [Search nearby](#) [Save to map](#) [more](#) ▾



MRO

Western  
Australia

Darwin

Northern  
Territory

Queensland

Australia

South  
Australia

Perth

New South  
Wales

Adelaide

Victoria

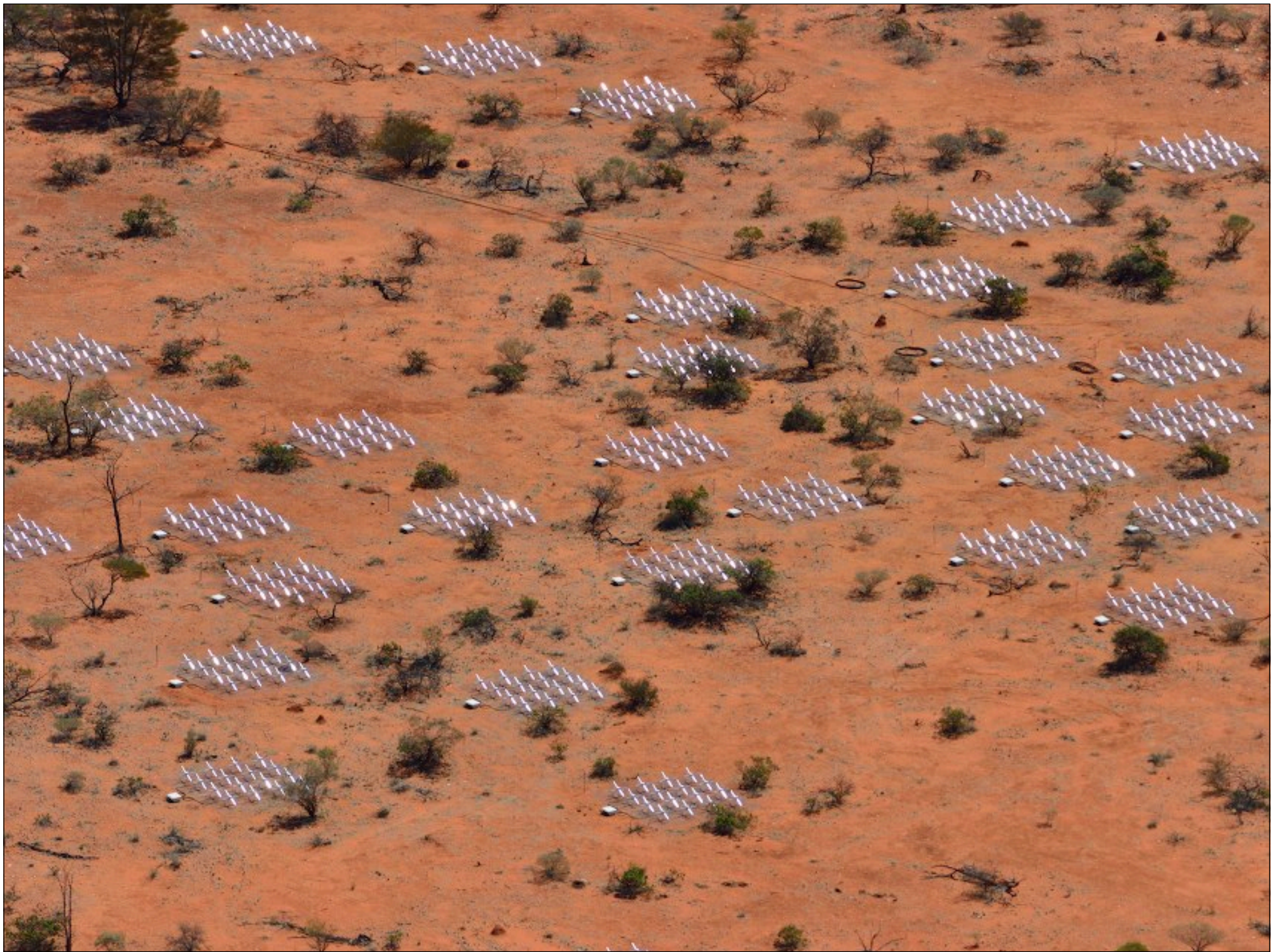
Melbourne

Great  
Australian  
Bight

500 km  
200 mi

# Murchison Widefield Array

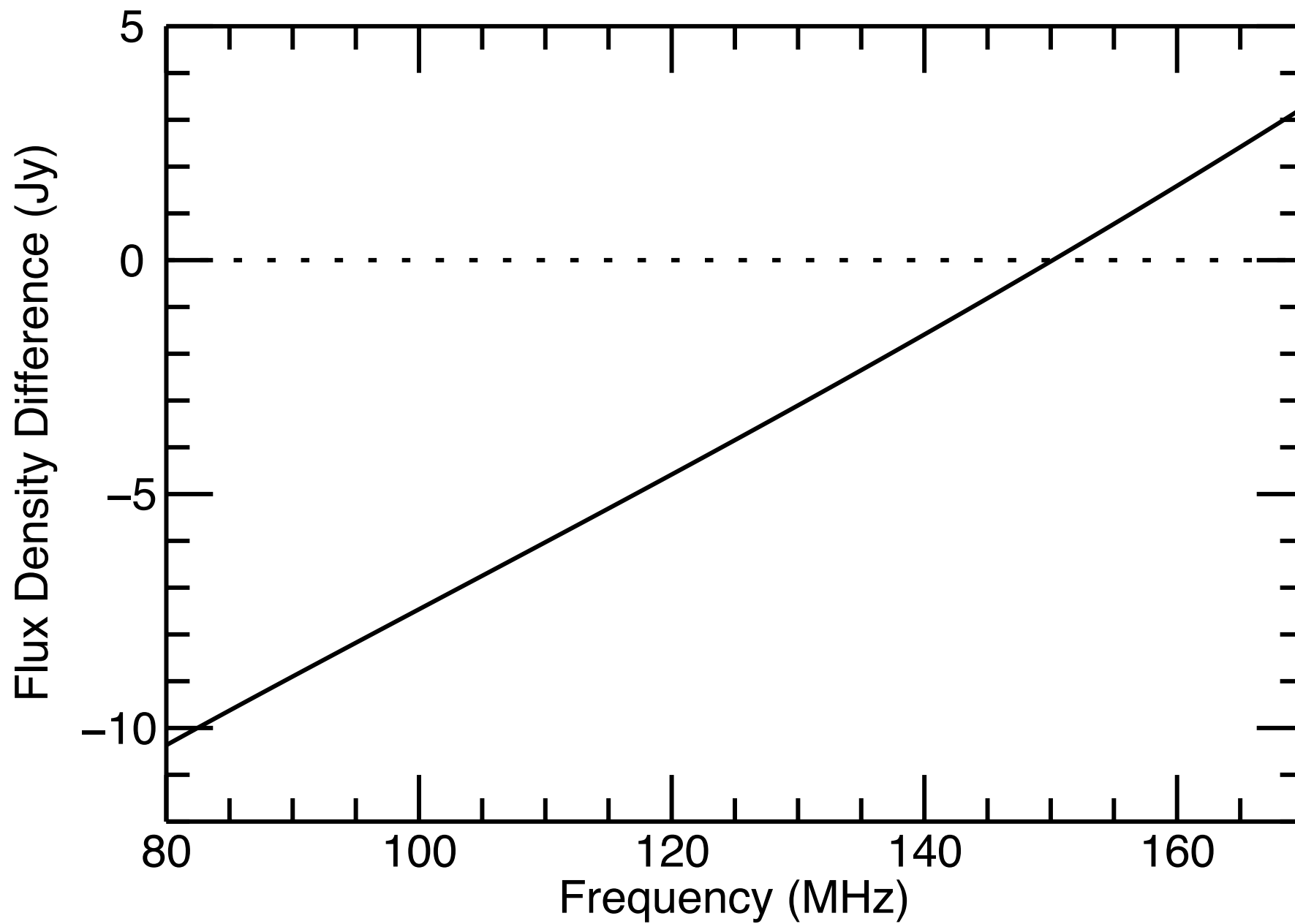


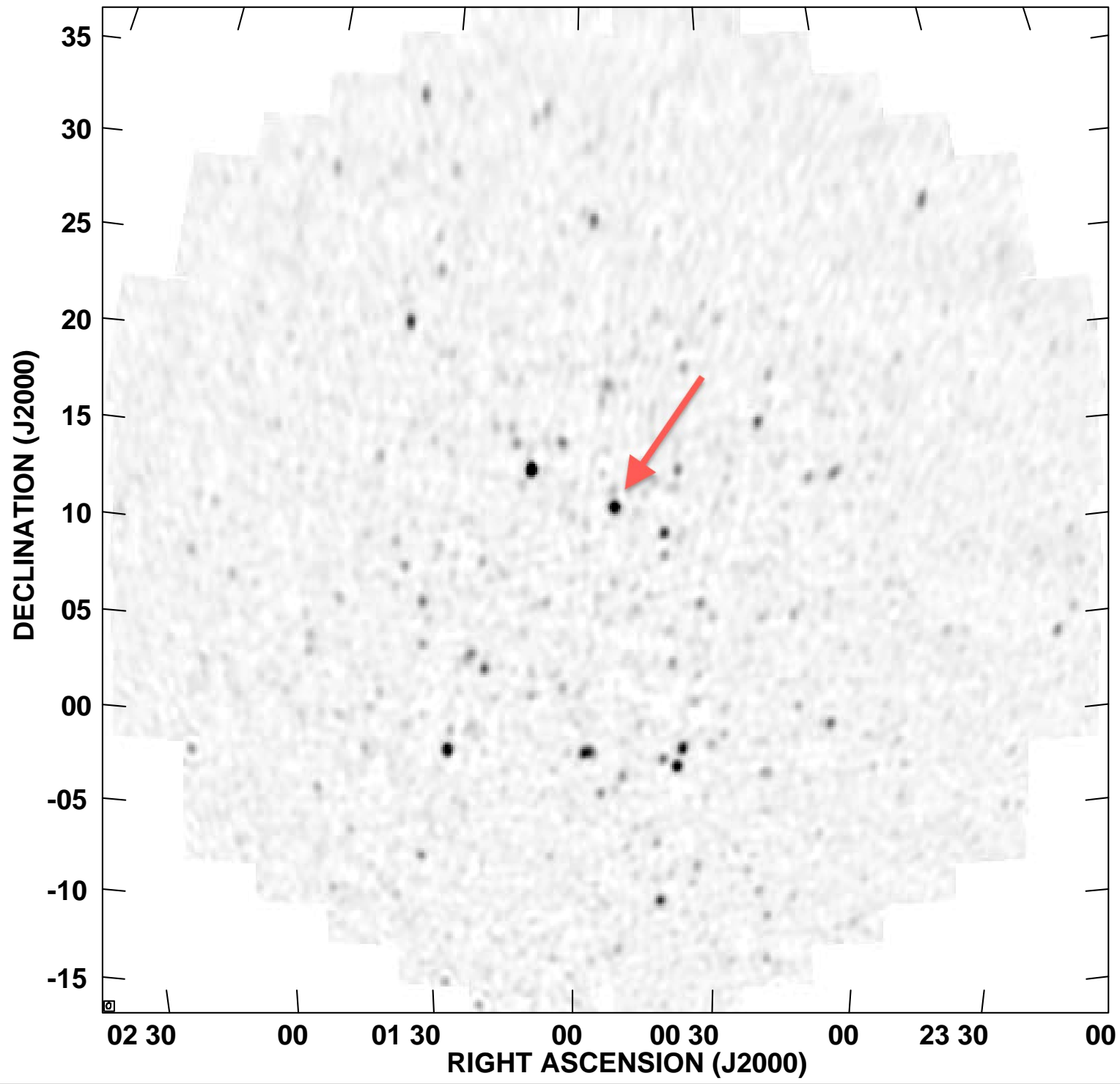


# Low frequency observations of the Moon with the Murchison Widefield Array

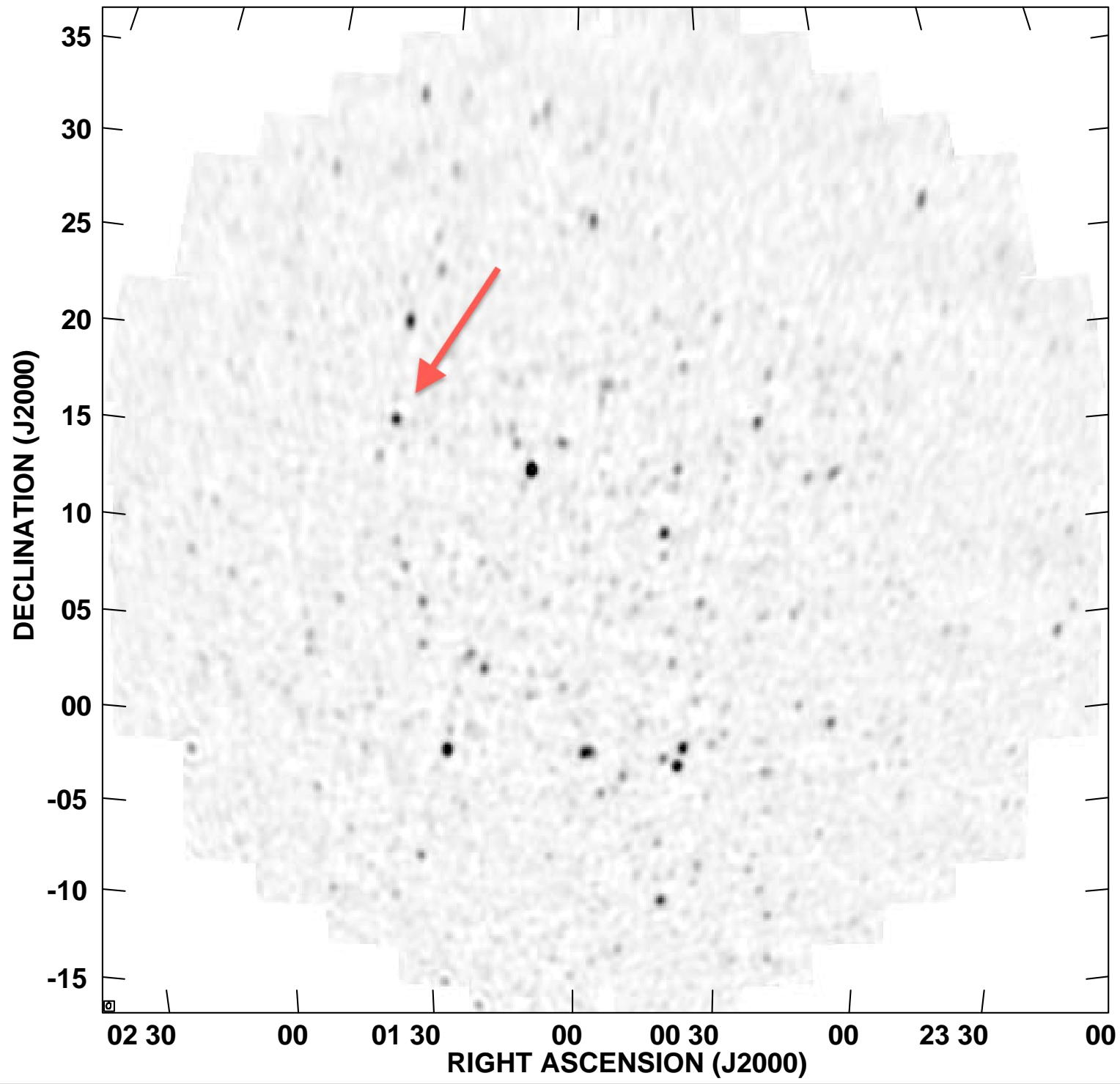
McKinley et al. (2012)

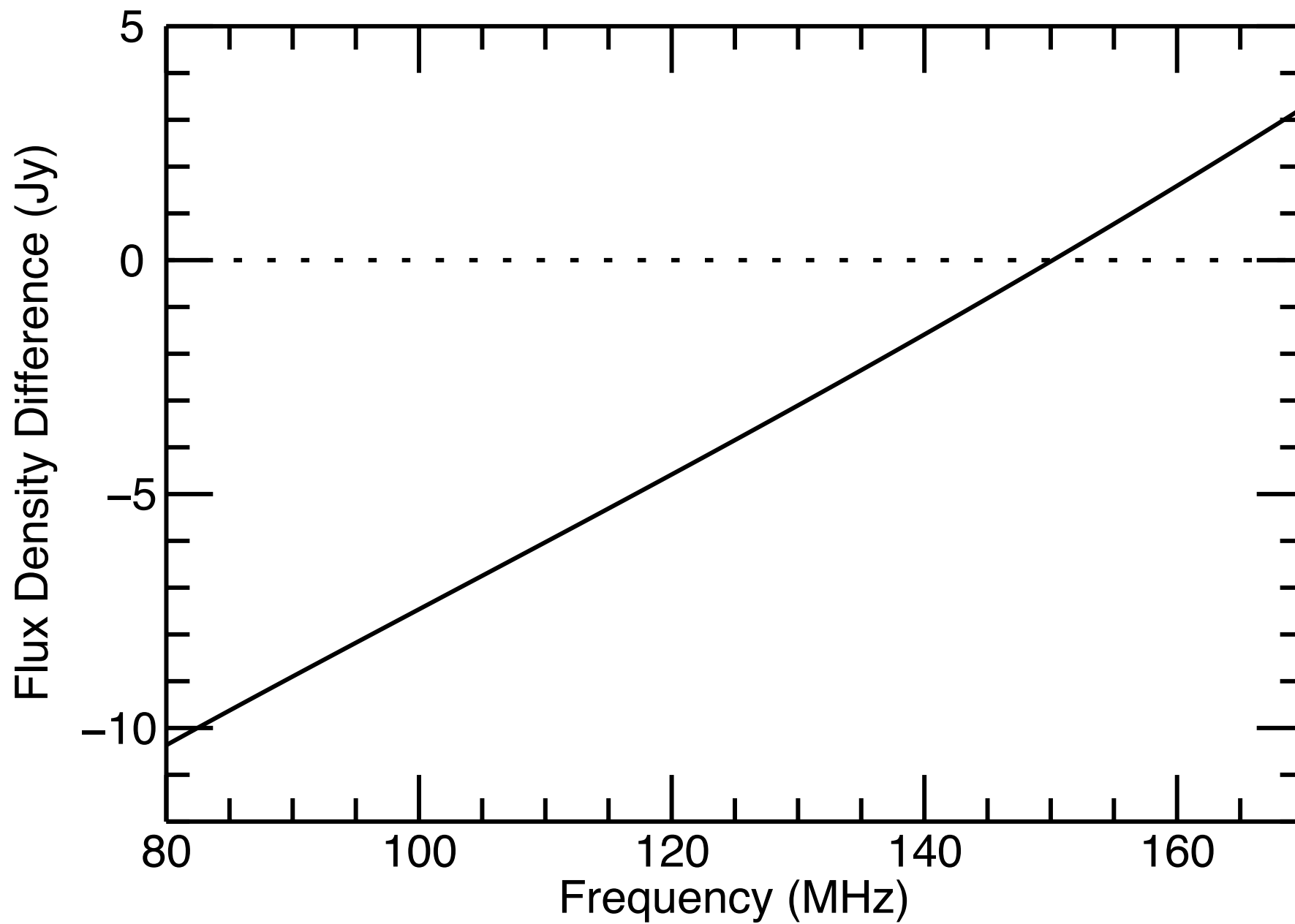
<http://arxiv.org/abs/1211.1433>

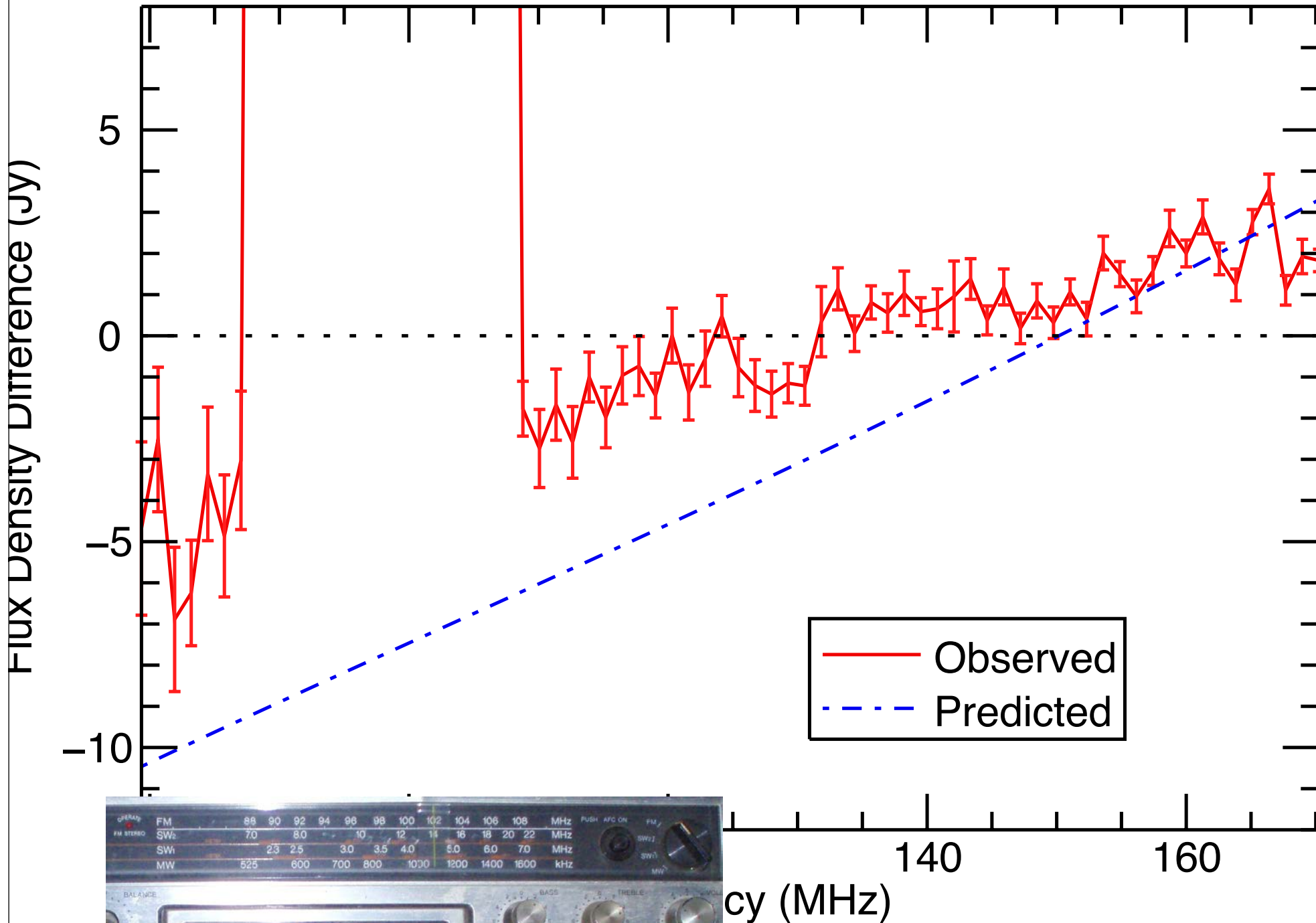




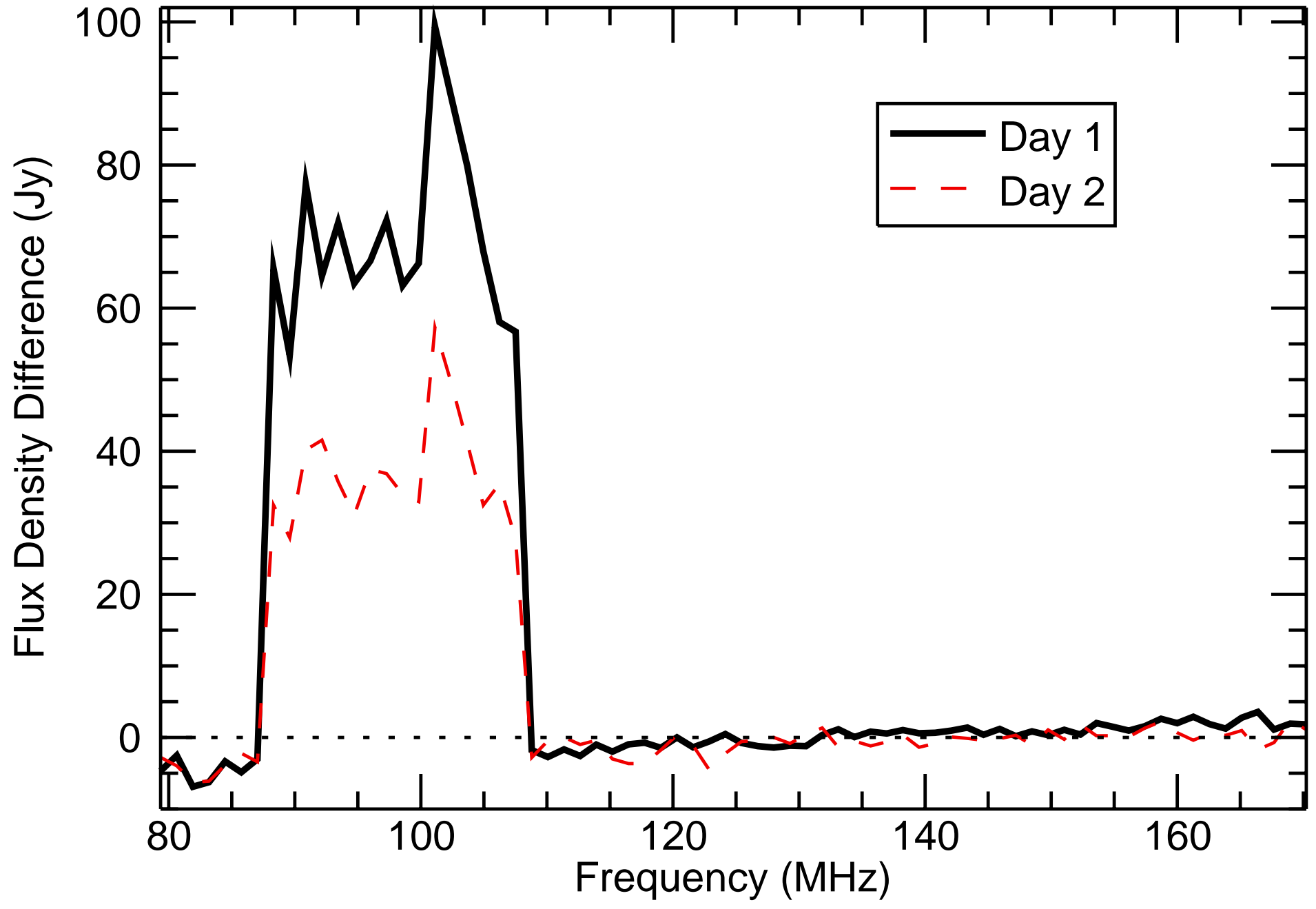








cy (MHz)

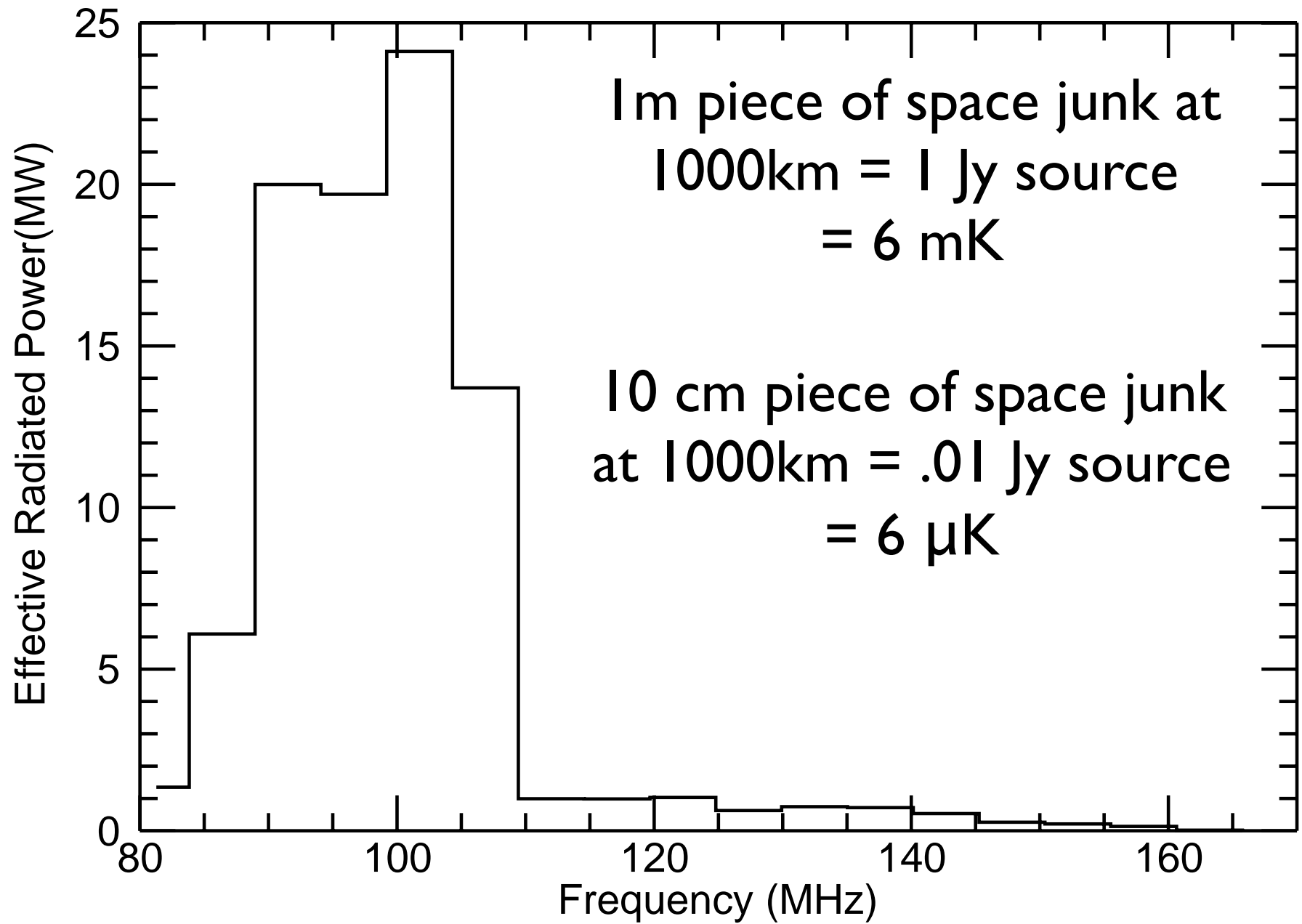


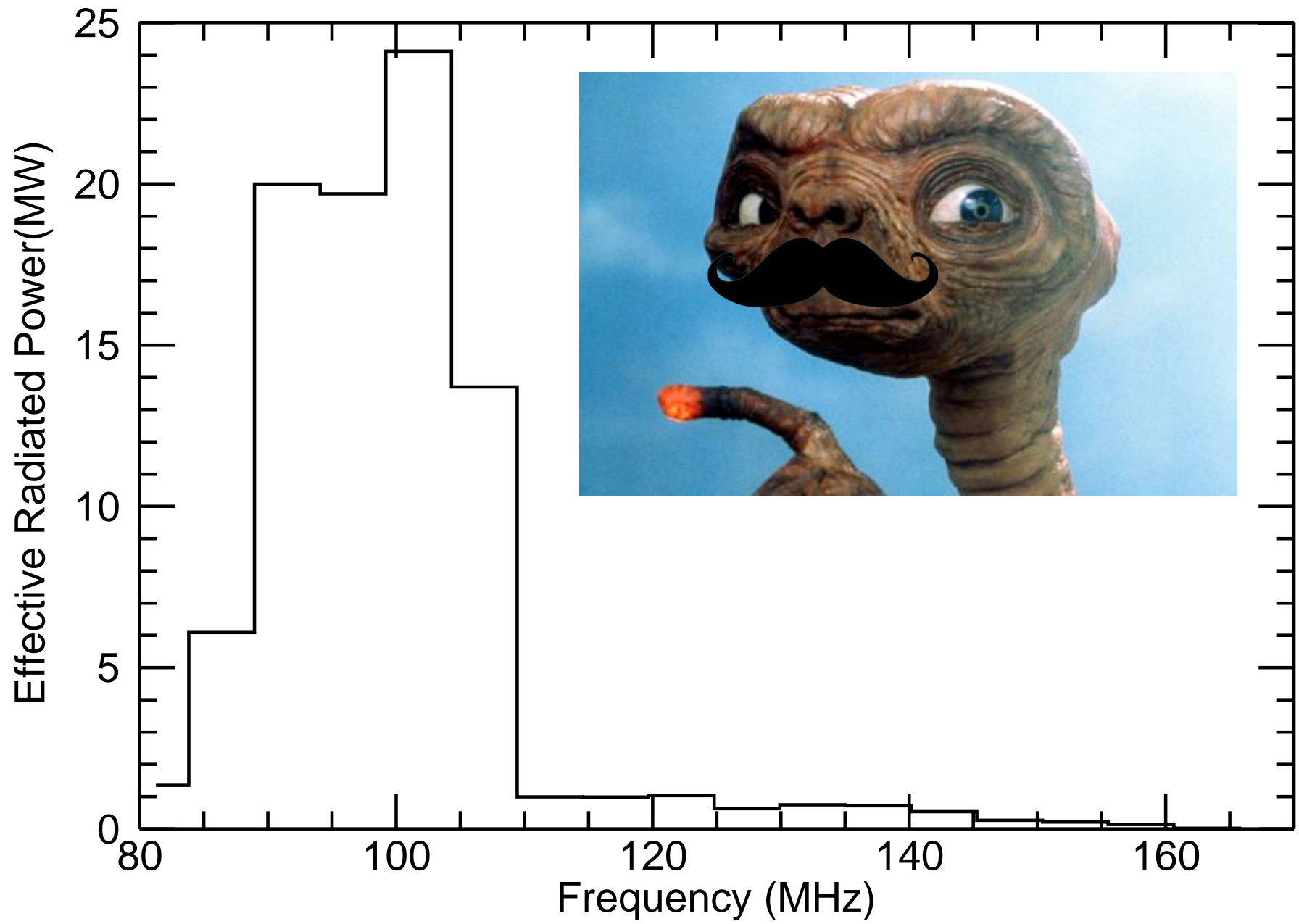
# Can the Moon mess up global EoR experiments?

Expected 'step' due to EoR is  $\sim .02$  K

The Moon is not smooth in frequency!!  
A 60 Jy source raises the antenna temp of a 2m  
antenna by  $\sim .03$  K

$$T_A(\text{K}) = \frac{S(\text{Jy}) A_{\text{eff}}(\text{m}^2)}{2k(\text{JK}^{-1}) \times 10^{26}}$$





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