

AST251 Project 3 – Evaluating Claims of Extraterrestrial Messaging bilskipe Planet 2

Sunday 21st August, 2089

We have identified what may be an indication of extraterrestrial intelligence, as well as the planet where it may have originated. This document summarizes the information gathered so far about the candidate message and its candidate planet of origin.

Potential evidence for extraterrestrial intelligence

Astronomers have detected a broadband microwave transmission that appears to have originated from this planet's solar system. The transmission is believed to contain an image and is displayed below with the most likely aspect ratio. The transmission lasted a short duration and then stopped. The transmission is shown below:

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001010101100111100000000000000001011101101100001001101001010  
11010111000000111101011111011000110000010010111011011000101  
00010010001100010000110100011100110101110100111101101100100  
0000110100010001100000100110100111000000001100101011010001  
11000000001001000000111101011011100000011000100001000010010
```

This signal was first noticed at UTC 2085-11-20/11:04.

Parameters of the candidate planet of origin and its host star

Spectral Type	F
Stellar Luminosity (Solar Units)	1.5
Stellar Mass (Solar Masses)	1.11
Distance to Star (lightyears)	613.5
Planet Mass (Earth masses)	0.5
Atmospheric Pressure (atm)	14.9

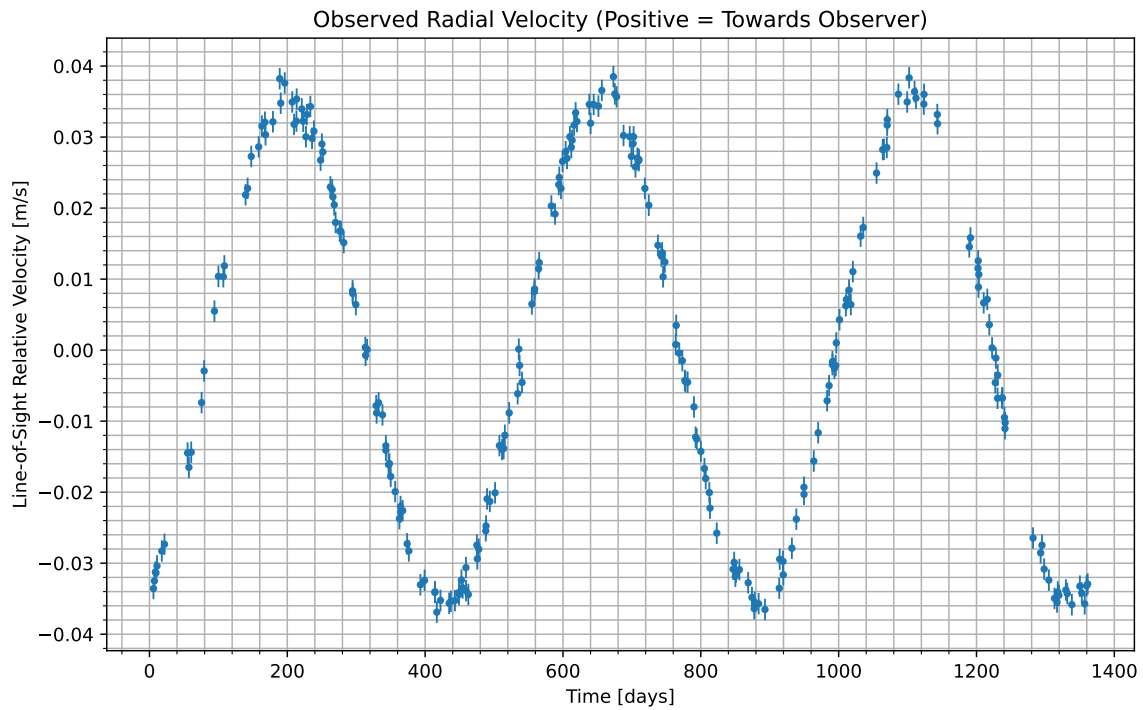


Figure 1: We have isolated the radial velocity of the host star due to the candidate planet. Data begins at UTC 2085-11-20/21:25. Positive values indicate the velocity at which the star is moving towards us; negative indicate the velocity at which it is moving away.

Atmospheric composition of the candidate planet (percent by volume)

Molecule	Concentration
N_2	11.9
CO_2	61
H_2O	27.1

Gas Abundance (percent by volume)

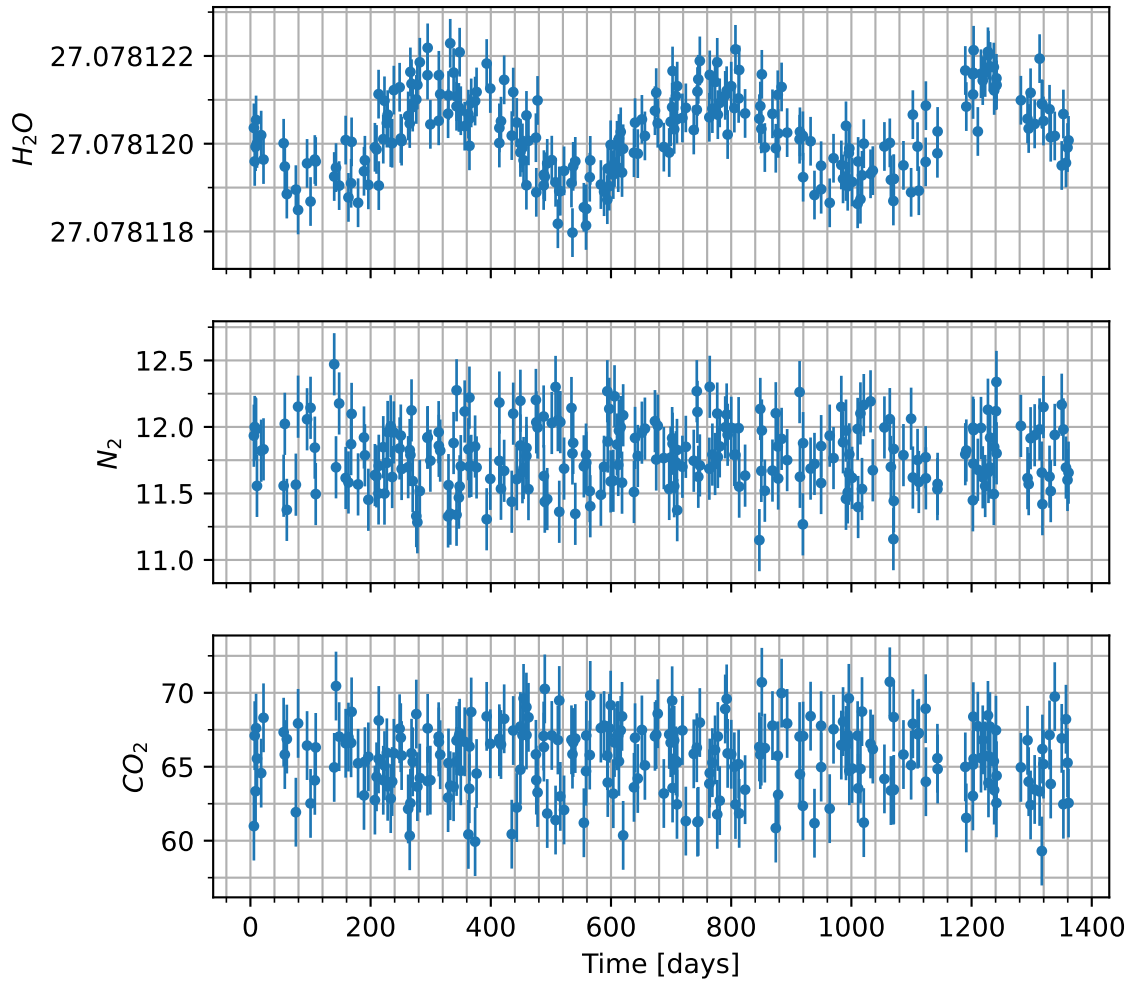


Figure 2: Concentration of various gases in the atmosphere of the candidate planet versus time. Note that the y-axis will usually only show the variation multiplied by some factor, shown in the upper left, and then added to some normal amount, also in the upper-left.

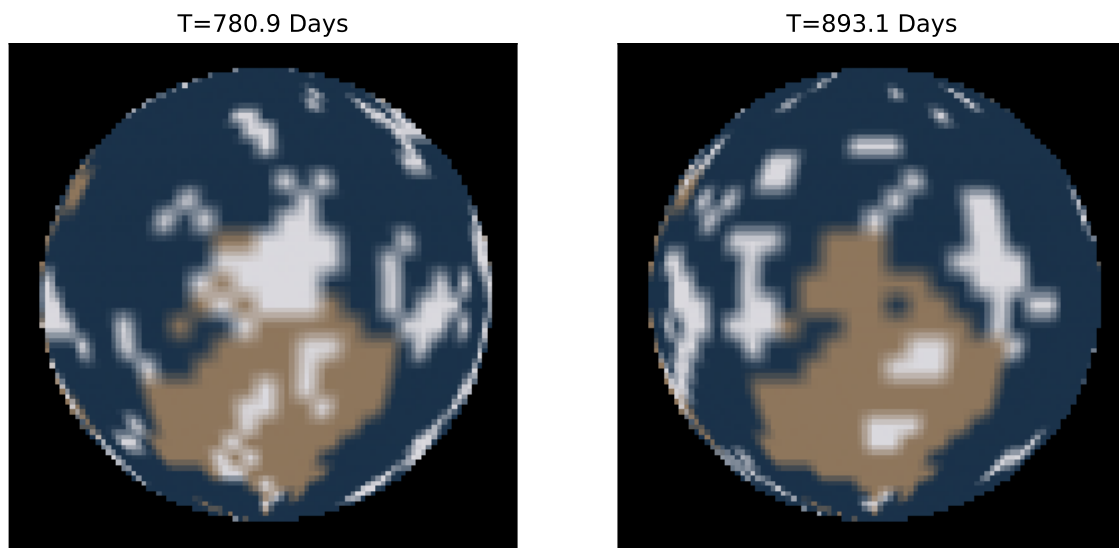


Figure 3: Maps of the surface of the candidate planet taken at two different times. Times are indicated above each image relative to the times shown in the radial velocity curve. Those maps are shown here. Tan areas indicate what we believe to be land, while blue-ish areas indicate what we believe to be liquid regions of some kind. Other colors present reflect the visible color as best as we are able to measure.