RFI AND DETERMINATION OF SUITABLE CELESTIAL OBJECT IN THE RANGE OF RADIO FREQUENCY WAVELENGTH.

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ABSTRACT

RFI AND DETERMINATION OF SUITABLE CELESTIAL OBJECT IN THE RANGE OF RADIO FREQUENCY WAVELENGTH

1000 years ago, nobody in the world know there are very crucial part at outer space that we can explore more.Today,Radio astronomy is an important subfield of astronomy that studies celestial objects in the range of radio frequency portion of the electromagnetic spectrum. It is important to identify radio frequency interference (RFI) in the observational window. Radio Frequency Interference (RFI) is disturbance that affects electrical circuit due to electromagnetic radiation emitted from an external source. The disturbance may interrupt, obstruct, or otherwise degrade or limit the effective performance of the circuit. In this project, two sites were choosed, PadangKawad and Applied Science Faculty at block A. First we need to determined which site has minimum frequency of RFI.The result obtained showed the lowest RFI located at Applied Science Faculty at block A. After site was choose, we refer to MCMC data and ITU data to identified celestial object that can be observed with lowest RFI we obtained at this site is -100.61 db and the object that can be observed is Jupiter.

CHAPTER 1

INTRODUCTION

1.1 Background study

Study of celestial object at outer space are very interesting and Malaysia still outdated in astronomy technology compare between others countries such as United States and China. There are many things that we need to learn and just not accept what information they got out there. It is because radio astronomy is an important subfield of astronomy that studies celestial objects in the radio frequency portion of the electromagnetic spectrum. It is important to identify radio frequency interference (RFI) in the observational window. It is very crucial technology to be explore because it benifitlly to our country. Radio Frequency Interference (RFI) is known as disturbance and it well known that affects electrical circuit due to electromagnetic radiation emitted from an external source. The disturbance may interrupt, obstruct, or otherwise degrade or limit the effective performance of the circuit. Before developed radio astronomical observation, usually it start with identify all the possible radio frequency interference (RFI) in the targeted observational windows.