

## Preface to the Third Revised Edition.

This book was originally published in 1991. In technology-time that is a very long time ago! Several times over the years, I attempted to retire the RATN, but there has not been time to write a suitable replacement and so I was forced to make revisions here and there instead. Several sections have been removed and replaced with more up-to-date material. In this 3<sup>rd</sup> revision I have tried to supply some alternatives to parts that are no longer available. The book was originally intended as a resource for teachers who wanted to incorporate radio astronomy into their classrooms. I found, over time, that the shortage of generally available information about these topics made the book popular with amateur scientists as well, perhaps as a tool to teach themselves what they wish they could have learned in school. Whatever the reasons, the RATN has been in continual though small demand since it was first produced 16 years ago.

I have removed the page on short-wave fading as a means of detecting solar flares and replaced it with notes about Solar Emissions in the 20 to 300 MHz range. This change was made due to a recent series of successful observations by amateurs with simple equipment that proved that this could be done more easily than was originally thought. It has also become evident that classes of solar bursts other than giant X-ray flares make suitable amateur targets, and that the complexity of these phenomena lend themselves well to study over a wide range of frequencies.

The Jupiter section has been re-done. In the past couple of years, NASA launched the Radio Jove Project. This program has been enormously successful in getting the right tools into the hands of teachers and experimenters to enable them to monitor Jupiter's fascinating decametric noise storms. It thus seemed appropriate that I should briefly introduce you to this program in the Jupiter section. For a detailed look at the topic I highly recommend Richard Flagg's *Listening to Jupiter*, also available from Radio-Sky Publishing.

There is now an introduction to Radio-SkyPipe in the section on Recording Radiotelescope Data. The Standard Edition of this new program is available on our website free of charge. You will find that it allows more than just recording your data on a PC. Radio-SkyPipe allows you to share your strip chart data in real-time over the Internet with others. It is a bit of a revolution in amateur observing and so I felt it would be inappropriate to leave it out even though it might sound like we are tooting our own horn here.

There are also a number of corrections made here and there which simply needed to be made. I must apologize in advance for the Internet links that now occur in the text. No doubt, some of these will become obsolete over the years. That is the way of the Internet. Searching on the subject will usually be enough to recover from this. I hope you enjoy this edition of the RATN and find it useful in your classroom or observatory.

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