OVERVIEW OF AVHRR/TOVS & ATOVS MATCHING

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ABSTRACT

Since several years, some studies have been done to combine the use of AVHRR and TOVS. We will present the main results already obtained and the questions which have to be solved in the next future:
- accuracy of co-registration of AVHRR pixels in HIRS field of view.
- cloud free HIRS field of view detection and cloudy condition processing.
- use of SST, cloud top temperature, cloud emissivity...
- plan to use NDVI and infrared emissivities atlas (in progress).
- current use of AVHRR/HIRS matching for direct RTE.
- plan to use such matching for inverse RTE.

Very poor results have been obtained concerning the combined use of AVHRR and MSU due to the raw antenna pattern of MSU. Next AMSU should give quite better possibilities. We are defining new objectives for this work:
- testing of a combined use of AVHRR-SSM/I or METEOSAT-SSM/I.
- similar using of SSM/T1 and T2 with AVHRR and METEOSAT.
- how to prepare a land microwave emissivity atlas?
- how to get a fast and accurate direct model taking account of surface emissivity, rain, ice...
  and easy to use.

1. COMPLETE PRESENTATION:

Most of the documents we presented at IGLS on this overview, were color slides, difficult to reproduce here for technical reasons...

So, the complete presentation (with color pictures) is available free of charge on request from:

Guy Rochard / CMS-Lannion / BP 147 / 22302-Lannion / France (Fax: 33 96 05 67 37).

and will also be available inside the AVHRR6 data User’s Meeting from EUMETSAT. (Sorry for the delay!).
2. **COMPLEMENTARY INFORMATIONS**

However, for people familiar with AVHRR and HIRS2 matching, as described into:

- Technical proceedings of 3rd TOVS conference (Pages 235 to 242)
- Technical proceedings of 4th TOVS conference (Pages 278 to 288)

We can add:

NOAA11: $\Delta I = +0.4$, $\Delta J = -0.7$

NOAA12: $\Delta I = +0.2$, $\Delta J = +2.0$

Furthermore, FORTRAN SOFTWARE to match AVHRR with HIRS2 is available on floppy disk (free of charge) from CMS / Lannion.

3. **REFERENCES**


TECHNICAL PROCEEDINGS OF
THE SEVENTH INTERNATIONAL TOVS STUDY CONFERENCE

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