

Update on ICRF-2 Working Group

44th IERS DB Meeting

15 April 2007

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Overview

▶ Background:

- Purpose: Generate ICRF-2
- Goal: Have ICRF-2 presented and adopted at IAU XXVII General Assembly

▶ Progress since IERS 43rd Directing Board meeting

- Web page established: <http://rorf.usno.navy.mil/ICRF2/>
- e-mail exploder established: ivswg-icrf2@astro.usno.navy.mil
 - ▶ 64 e-mail messages since 14 March
- Meeting 12 April 2007, 0900-1200

ICRF-2 WG meeting #1 (12 April 2007)

► Agenda:

0. Introductions and overview (10 min)
1. Source categorization - defining, unstable, criteria, etc.
talks by Sebastien and perhaps Oleg (already circulated) (40 min)
2. Time series - (40 min)
methods for generation - some examples of results
types of analysis
format for distribution
source naming
3. How to treat position variations in catalogue generation (20 min)
4. Catalogues - (30 min)
with/without VCS sessions
format for comparisons
5. Data center - IVS, other? (10 min)
6. Upcoming meetings - Paris, Shanghai, next WG meeting (10 min)

► **Attendees (18):** Ma, Nothnagel, Titov, Jacobs, Boboltz, Petrov, Charlot, Gaume, Fey, Sovers, Thorandt, Heinkelmann, Yatskiv, Lambert, Gontier, Malkin, Sokolova, Tesmer

ICRF-2 WG mtg #1

► Introductions (everyone)

► WG milestones

- Generation of position time series: first pass - April 2007, update - Sept 2007
- Analysis of position time series: first pass - Sept 2007, update - June 2008
- Analysis of catalogue noise: first pass - Sept 2007, update - June 2008
- Source structure catalogue: first pass - Sept 2007, update - June 2008
- Source structure evolution: first pass - March 2008, update - June 2008
- Selection of stable and/or unstable sources: July 2008
- Selection of defining sources: August 2008
- Second ICRF catalogue: December 2008
- Presentation to IAU WG: March 2009
- Presentation to IAU GA: August 2009

► WG meetings (tentative)

- April 2007 at EGU - April 12 2007 (this meeting)
- September 2007 at Journees (Paris) mtg likely scheduled Thurs 20th, Fri 21st, or Sat 22nd
- March 2008 at IVS General Meeting (St. Petersburg)
- December 2008 at AGU (San Francisco)

► WG presentations (tentative)

- September 2007 at Journees
- September 2007 at IERS Workshop on Conventions
- October 2007 at IAU Symposium 248
- January or June 2008 at AAS

ICRF-2 WG mtg #1 (cont)

- ▶ Source categorization - defining, unstable, criteria, etc.
 - Presentation Anne-Marie Gontier -> Time series statistics (Feisel-Vernier, 2003)
 - ▶ *Time series will be critical in choosing the core-defining sources for ICRF-2*
 - What about VCS sources?
 - ▶ *Positions of VCS will be reported in the ICRF-2 but no time series available, no data on stability, etc.*
- ▶ Time series
 - methods for generation - some examples of results (*Leipzig, USNO, Geosciences-Australia*)
 - types of analysis
 - format for distribution
 - ▶ *Will use IERS format for time series.*
 - source naming *IERS names have been generated for most sources. We will use this for our internal purposes. Can use dictionary for translation to other naming conventions e.g. IAU names.*
- ▶ How to treat position variations in catalogue generation
 - *Plan to have discussion on source structure at the next meeting.*

ICRF-2 WG mtg #1 (cont)

- ▶ Catalogues -
 - with/without VCS sessions
 - format for comparisons
 - ▶ *Use IERS Format*

- ▶ Data center - for exchange of WG data?
 - *Use IVS Data Center (ivsincoming via named ftp)?*
 - *Use misc area on IVS ftp site (ivsmic on ivscc via named ftp).*
 - ▶ *Chose this option*

- ▶ Upcoming meetings - Paris, Shanghai, next WG meeting (10 min)
 - Journees (The Celestial Reference Frame for the Future) Sept 17-19, 2007
 - ▶ **Session 1. Plans for the new ICRF WG encouraged to submit papers**
 - **Progress in the second realization of ICRF**
 - **Connecting the new ICRF to other wavelengths**
 - **Connecting the dynamical reference frame to the new ICRF**
 - **Gaia and the new ICRF**
 - **Analysis of VLBI data for the realization of the new ICRF**

 - ▶ *Next Working group meeting: After Journees, Thursday, Friday or Saturday 20th – 22nd*
 - **Analysis of position time series:** first pass - Sept 2007, update - June 2008
 - **Analysis of catalogue noise:** first pass - Sept 2007, update - June 2008
 - **Source structure catalogue:** first pass - Sept 2007, update - June 2008

 - ▶ IAU 248 -> A Giant Step: from Milli- to Micro-arcsecond Astrometry Oct 15-19, 2007 Shanghai
 - *Chopo giving invited talk on ICRF-2 (Limited opportunity for oral presentations) Posters solicited*