



Montpellier

September 5, 2024

Page 1

## IDS GB meeting

### **AGENDA:**

- Governing board members and next IDS elections (Laurent Soudarin)
- Working Group "Integrated clock corrections for DORIS" status (Patrick Schreiner)
- Working Group "NRT ionospheric application" status (Ningbo Wang)
- Genesis DORIS Working Group (Guilhem Moreaux)
- Workshop: Recommendations and highlights (Cécile Manfredi, Laurent Soudarin)
- Updates from CDDIS (Taylor Yates)
- Next IDS events and participation in major events
- AOB

### **MAIN DECISIONS:**

Writing an IDS reference article

### **ATTENDEES:**

#### Elected and appointed members:

Karine Le Bail, Frank Lemoine, Cécile Manfredi, Guilhem Moreaux, Jérôme Saunier, Ernst Schrama, Laurent Soudarin, Taylor Yates + Patrick Schreiner (ex-officio member)

Excused: Laura Sanchez, Petr Stepanek, Tonie van Dam

Guest: Ningbo Wang

<b>Actions list</b>	See appendix
<b>Governing members and IDS representatives</b>	<p>From September 1, Cécile Manfredi, previously CNES DORIS project manager, takes on the role of CNES/IDS project manager and representative of the DORIS system within the IDS, replacing Claude Boniface who was acting temporarily after Arnaud Sellé left for another position in September 2023.</p> <p>Taylor Yates is Patrick Michael’s substitute until the end of his term (Dec. 31, 2024).</p> <p>Patrick Schreiner (GFZ) as the chair WG “Integrated Clock Correction Strategies for DORIS”, is a non-voting member of the GB.</p> <p>Karine is the IDS representative on the GGOS Governing Board from September 2023 for a four-year term. The GB decides that, in this capacity, she may be invited to IDS GB Meeting, even if she does not have a new mandate as an IDS GB member after her current term (2021-2024).</p>
<b>GB elections</b>	<p>The CB will organize the elections for the renewal of 3 positions for 2025-2028:          Data Centers’ representative (currently Patrick Michael, subst. Taylor Yates)          Analysis Centers’ representative (currently Frank Lemoine)          Member-at-large (currently Karine Le Bail)</p> <p>NB: Pat and Frank have served two terms consecutively and cannot apply for a new term</p> <p>Proposed calendar:          September: update of the list of IDS Associates          September: election announcement          September- October: call for nomination (reminder end October)          Early November: call for vote          December: results announcement          January 2025: start of 4-yr term for the three new elected members          January 2025: election of GB chair by GB voting members</p>
<b>GB appointed members</b>	<p><b>IERS representative</b>          Tonie van Dam's four-year term will end by the end of 2024.  <b>Action_GB_24_01: CB asks IERS to appoint a representative for the next term 2025-2027.</b>          Note that Tonie van Dam's four-year term as Chair of the DB will end by the end of 2024. As already announced at the IERS DB meeting in Vienna in April this year, she will not stand for a second term. Therefore, elections for a new Chairperson will be held in September/October this year.</p> <p><b>DORIS System representative and the Network representative</b>          They are appointed by CNES and IGN, respectively, for four-year terms without limitation. The current term is 2021-2024.  <b>Action_GB_24_02: CB asks CNES and IGN to appoint their representative for the next term 2025-2027.</b></p> <p><b>Combination Center representative</b>          According to the Terms of Reference, the Combination center is selected by the Governing Board every four years through a Call for Participation initiated six months prior to the end</p>

	<p>of the current CC term. Interested centers submit proposals outlining their plan for the operation of the CC and the resources that they will commit. The current term is 2021-2024. A new call for participation will be sent out. The process will be launched after the GB elections, early 2025.</p> <p><b>Action_GB_24_03: the central bureau writes the call and submits it to GB for approval</b></p> <p><b>Central Bureau</b> The Central Bureau serves for a term of four years. The current term is 2023-2027. Frank Lemoine is agreed to join the CB from January 2025, after the end of his chair mandate.</p>
<p><b>Working Group "Integrated clock corrections for DORIS"</b></p>	<p>Patrick Schreiner gives a status of the WG activity.</p> <p>15 participants are declared today.</p> <p>Main stages:</p> <ul style="list-style-type: none"> <li>• November 2023: decision to establish a working group on DORIS clocks during the IDS AWG Meeting</li> <li>• March 2024: establishment of the WG: "Integrated Clock Correction Strategies for DORIS"</li> <li>• June 2024: Approval by IDS GB</li> <li>• 24th June 2024: First WG meeting</li> </ul> <p>To do:</p> <ul style="list-style-type: none"> <li>• DORIS clock co-location             <ol style="list-style-type: none"> <li>1. Create test clock series for testing of processing</li> <li>2. Modify DORIS data processing tools</li> <li>3. Investigate various correction strategies (sampling, smoothing) and run testing campaigns</li> <li>4. Create a product to be used by IDS and end users</li> </ol> </li> <li>• Prepare a recommendation for routine production of the clock products and their archival at the IDS data centers as an official IDS product</li> <li>• Prepare recommendations for future missions concerning DORIS-GNSS clock co-locations</li> </ul> <p>General actions already done:</p> <ul style="list-style-type: none"> <li>• Jérôme Saunier and Cécile Mandfredi agreed to contribute to the WG with updates on the DORIS network and the status of the physical link of GNSS ground receivers and DORIS beacons.</li> <li>• The CB created a mailing list for the WG</li> <li>• The CB created a shared folder for the WG.</li> </ul> <p><b>Action_GB_24_04: CB organizes regular meetings with Patrick about activity progress of the WG</b></p>
<p><b>Working Group "NRT ionospheric"</b></p>	<p>Ningbo Wang gives a status of the WG setup</p> <ul style="list-style-type: none"> <li>• The first version of WG Terms of Reference is ready for review.</li> </ul>

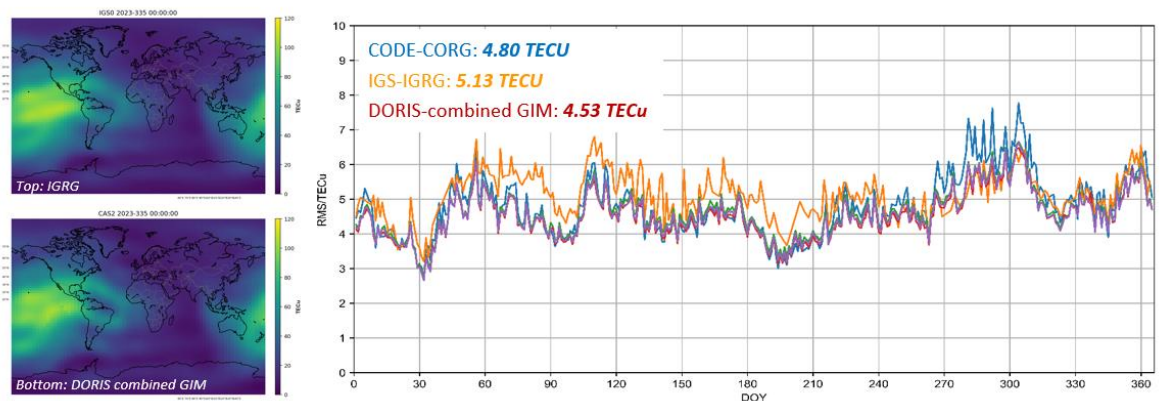
**applications" status**

- Information on the new IDS working group on NRT ionospheric application was distributed via DORISMail-1403, IGSMail-8503 & IGS-RTWG-355
- 10 colleagues from nine universities/institutions on the list (Poland, Germany, Spain, UK, Canada, China), so far
- Call for participation open until end of September
- Highlighted activities: close co-operations with IGS to provide new version of operational IGS combined global TEC maps based on the independent DORIS weighting technique

Note that Ningbo is also the vice-chair of the IGS Real-Time WG, IAG Real-Time Ionosphere Monitoring WG, IAG Biases in multi-GNSS Data Processing WG. He will present a review on global ionospheric models and potential refinements at the GGOS topical meeting on the atmosphere in Potsdam on October 7.

One of the current objectives of the IGS Real-Time WG is to replace the standard IGS combined rapid/final GIM products by mid-2025.

Result presented at IGS Workshop 2024, Bern:



The GB asks the WG to communicate regularly with the BC about activities, meetings etc...

**Action\_GB\_24\_05: Frank and GB reviews ToR, goals and member list sent by Ningbo**

**Action\_GB\_24\_06: CB organizes regular meetings with Ningbo about activity progress of the WG**

**Genesis DORIS Working Group**

Guilhem Moreaux gives a status of the WG by listing the actual members of the WG, the actions GM realized such as the redaction of a preliminary version of the ToR (which was shared with the four other WGs) and the request to ESA to get access to documents which may explain some key features of the mission (i.e. choice of the orbit inclination).

**IDS Workshop 2024**

A successful workshop:

- 26 presentations for 4 sessions
- international participation (Europe, USA, China, India, ...)
- new motivated players (GFZ, DGFU-TUM, National Technical University of Athens, IIT Kanpur, AIR-CAS).

	<ul style="list-style-type: none"> <li>• New POD softwares, developed from scratch, are coming and becoming more and more mature</li> <li>• The SAA effect is on the process of being corrected for the Sentinel-3 and 6 missions owing to the link between DORIS and GNSS receivers</li> </ul> <p>Recommendations from session POD:</p> <ul style="list-style-type: none"> <li>• Consider updating the sp3 format precision for the orbits (at least one more digit)</li> <li>• Keep connecting the DORIS USO with GNSS receivers for future missions (like Sentinel ones) as it is for now the most promising way for correcting the SAA effect</li> </ul> <p>Request from newcomers: ACs to provide processing outputs for comparisons.</p>
<p><b>Updates from CDDIS</b></p>	<p>Taylor Yates presents the updates from CDDIS.</p> <ul style="list-style-type: none"> <li>• Developed at the CDDIS, Version 4 of Ingest Processing is an improved software package that aims to meet the needs of data providers and users by ensuring conformity to standards and reducing delays in processing. V4 is already operational with SLR Data. DORIS data and products are next in the list of implementations</li> <li>• The CDDIS has paused its transition to the Earthdata Cloud until further notice.</li> <li>• The CDDIS upholds the FAIR (Free, Accessible, Interoperable, Reusable) principles.</li> <li>• Reminder: The CDDIS archive is available via FTP-SSL and HTTPS. Downloads via HTTPS require authentication with Earthdata Login and downloads via FTP-SSL are allowed to be anonymous.</li> </ul> <p>See Poster presented at the Workshop <a href="https://doi.org/10.24400/312072/i03-2024.3905">https://doi.org/10.24400/312072/i03-2024.3905</a></p>
<p><b>Next IDS events and participation to major events</b></p>	<p><u>Next major events</u></p> <ul style="list-style-type: none"> <li>• GGOS Focus Areas Topical Meeting, Potsdam, Germany, 7-11 October 2024 Announcement: <a href="https://ggos.org/news/ggos-focus-areas-topical-meeting-ggos-days-2024/">https://ggos.org/news/ggos-focus-areas-topical-meeting-ggos-days-2024/</a></li> <li>• AGU: 9-13 December 2024, Washington DC, USA</li> <li>• EGU: 27 April – 2 May 2025, Vienna, Austria (hybrid)</li> </ul> <p><u>IDS Events</u></p> <ul style="list-style-type: none"> <li>• AWG meetings: two in 2025? One remote in semester 1, one in person in semester 2? Potential host: DORIS team at Dionysos Observatory.</li> <li>• IDS Workshop: 2026 in conjunction with the OSTST meeting</li> </ul>
<p><b>AOB</b></p>	<p>IDS AR report 2023: a couple of contributions missing</p> <p>Newsletter: a new issue is targeted before the end of 2024. Articles: DORIS/Gravity field by A. Löscher, DORIS at Hanga Roa by J. Saunier + insert by Host agency, report of the Workshop, IDS life</p> <p>IDS reference article: Frank will propose a plan in the next coming weeks and will solicit some IDS members as co-authors.</p>



Montpellier

September 5, 2024

Page 6

**Next GB  
meeting**

The next meeting is to be scheduled in January.  
Sole item on the agenda: election of GB chairperson.

**Appendix: action list**

**New / Changes** (since previous review)

N°	Origin	Title	Action	answer	Resp.	Opening date	Deadline	status
GB_16_12	GB	ToR	propose a correction of the Terms of Reference about the duration of the Chairperson's period	<p>2017/05/24: take into account the correction chosen by the GB (maintain the Chair as ex-officio) and update the ToR</p> <p>2018/06/15: Frank will quickly check the proposition sent by Laurent</p> <p>2018/09/26: Frank would like to include some other modifications proposed at the Retreat:</p> <p>(a) clarify term of chairman.</p> <p>(b) In line with recommendation from IDS Retreat, think of more expansive language about IDS Mission, talking about IDS Mission in terms of more fundamental services to science and society.</p> <p>(c) the term "chairman" is sexist. Should we have another designation for this office?</p> <p>2019/03/31 B. Luzum: "the term "chair" is gender neutral and might be considered"</p> <p>2019/09/30: To be done before next election (Fall 2020)</p> <p>2023/02/03: To be done before IAG EC meeting in Berlin July 2023</p> <p>2023/02/13: A committee is set up: Frank, Pat and Laurent. GB members will read the ToR (<a href="https://ids-doris.org/ids/organization/terms-of-reference.html">https://ids-doris.org/ids/organization/terms-of-reference.html</a>) and send proposals of updates within two weeks to the committee. The committee will include the modifications proposed at the retreat (see above) and the minor changes proposed by the GB. Major changes will be the subject of another discussion for a later revision. A vote of the GB will be organized to validate the updated ToR before sending them to IAG EC for approval.</p>	Central Bureau + F. Lemoine	01/11/2016	15/12/2024	open

N°	Origin	Title	Action	answer	Resp.	Opening date	Deadline	status
GB_18_29	GB	Cookbook for RINEX processing	Create a cookbook for RINEX processing	2019/04/05: Matthis Blossfeld, Sergey Kuzin, Pascal Willis could review the document 2020/11/24: Hugues will send a message to Jean-Michel 2023/02/13: Petr will contact the ACs, the AACs and the group at Dionysos to know if they documents are needed or the papers are enough. If demanded, Petr will start the writing.	JML, HC with expected support of Alexandre Couhert and Flavien Mercier	26/09/2018	15/12/2024	open
GB_18_30	GB	Observable in RINEX	To create a document that better defines observable in the RINEX	2020/11/24: Hugues will send a message to Jean-Michel 2023/02/13: action to link with GB_18_29	JML, FL, with help from CJ, with solicited comments from Mathis Blossfeld, and John Ries	26/09/2018	15/12/2024	open
GB_18_31	GB	Mitigation of SAA effect	To write a document with the list of strategies for mitigation of SAA effect on DORIS satellites (Jason-1, Jason-2, Jason-3, SPOT-5)	2019/09/30: 1 or 2 pages with inputs of the presentations on SAA at AWG meeting Paris October 2019. 2020/11/24: write the document with updates based on the processing for ITRF2020 2023/02/13: Petr proposes: 1. Write the summary of the strategies so far applied by the ACs with the help of Hugues and Guilhem 2. Submit the documents to ACs for suggestions 3. Provide the document to the CB for putting it on the website	Analysis Coordination	26/09/2018	15/12/2024	open
GB_18_32	GB	Working Group on SAA	To propose charter for Working Group, work plan, and ideas for members, and submit to GB for consideration	2019/04/05: HC asks JML if still interested in 2019/09/30: Pierre Exertier (GRGS) proposed to participate and lead the WG. Hugues will check with Jean-Michel Lemoine and get confirmation from Pierre 2020/11/24: Hugues will contact Pierre again 2023/02/13: Postpone the continuation of this action after the next AWG meeting (Apr 18, 2023) where the subject will be discussed	Pierre Exertier, Hugues Capdeville	26/09/2018	15/12/2024	open
GB_19_02	GB	Software	check availability of all the software (contact Tim Springer for	2019/09/30: request for information (software availability, point of contact, license) to be sent quickly to ACs, AACs and other groups (Norway).	Analysis Coordination + Central Bureau	05/04/2019	15/12/2024	open



N°	Origin	Title	Action	answer	Resp.	Opening date	Deadline	status
			Napeos); CB will prepare a table on the website with links to softwares' webpages, information about licences if any.	2020/11/24: Geodyn freely available online <a href="https://sgp.gsfc.nasa.gov/techniques/tools/GEODYN/GEODYN.html">https://sgp.gsfc.nasa.gov/techniques/tools/GEODYN/GEODYN.html</a> 2023/02/13: Laurent will start this action, in preparation for the DORIS days 2023. 2023/11/20: work in progress				
GB_19_07	GB	IDS Newsletter	send the distribution list to the GB for proposal of new recipients	2019/09/30: make the subscription easier; add a link on the front page. 2023/02/07: added link on the next website version to be deployed in February; take steps to comply with EU GDPR regulation <a href="#">2024/07/05: next website version not yet finalized</a>	Laurent Soudarin	05/04/2019	15/12/2024	open
GB_19_08	GB	WG Geocenter	ask Alexandre Couhert to write 1 or 2 paragraphs describing the goals of the WG, and forward GB's approval to chair the IERS WG	2019/09/30: The WG is created. Participation of GOP, GSFC, GRGS. 2023/02/13: We need to try to rejuvenate this WG. There are some activities. Guilhem will ask Alexander to give the status of the WG. Frank pointed out the charter for this WG has not been approved by the GB.	Hugues Capdeville	05/04/2019	15/12/2024	open
GB_19_19	GB	Strategic plan	push people to get the paragraphs	2023/02/07: distribute Marek's slides to GB and organize a working session to decide further actions	Frank Lemoine + Laurent Soudarin	30/09/2019	15/12/2024	open
GB_19_22	GB	CC products	clarify naming conventions and propose a solution	2020/11/24: not only CC products but also AC products; to be done before ITRF2020 publication 2023/02/06: to be discussed with Guilhem 2023/02/14: status?	Guilhem Moreaux + Laurent Soudarin	30/09/2019	15/12/2024	open
GB_20_10	GB	User survey	solicit the GB members to prepare the user survey 2021	2023/02/07: submit survey to GB before the meeting Feb 13. 2023/02/13: item not added to the agenda of the GB meeting, already full. See if Committee "DORIS days 2023" can suggest updates.	Central Bureau	24/11/2020	15/12/2024	open
GB_20_11	GB	IDS and social networks	evaluate the creation of a LinkedIn account for the IDS and its	2023/02/07: need of a communications and outreach manager?	Central Bureau	24/11/2020	15/12/2024	open

N°	Origin	Title	Action	answer	Resp.	Opening date	Deadline	status
			regular supply of information					
GB_22_07	GB	NRT data	provide other satellites (S6A, S3-A&B, HY2-C&D, ...)	<p>2022/02/11: data will be at IGN DC only ask to keep only the last month. see possible latency improvements the WG must tell us if it is worth it to gain 30mn, then we will see on the CNES/CD side if we can do it</p> <p>2023/02/07: in progress for S3-A&amp;B, S6-A. No Diode on HY-2C&amp;D</p> <p>2023/02/13: discussed in GB meeting Feb. 13. No additional request.</p> <p><b>2023/11/20: CNES must choose a solution for the distribution and provide a calendar</b></p> <p>2024/07/05: As of July 5, 2024, RINEX DORIS data and real-time DORIS orbits are available for seven satellites with a latency of &lt; 3 hrs, at the IGN data center.</p> <p>Cryosat2 (orbits not yet distributed), Jason-3, Sentinel-3A, Sentinel-3B, Sentinel-6A, Saral, Swot (NB: DIODE is not on HY-2C&amp;D)</p>	Arnaud Sellé	02/11/2022	01/06/2023	closed
GB_22_08	GB	New groups	Contact each group individually, propose dedicated meetings: india, Greece, Bonn, Chili, Argentina		Laurent Soudarin	02/11/2022	15/12/2024	open
BC_23_02	BC	DOI	determine needs of DOI for IDS products, documentation, ...		Central Bureau	07/02/2023	15/12/2024	open
BC_23_05	BC	IDS article	propose a plan of the article		Frank Lemoine	31/01/2023	15/12/2024	open
BC_23_08	BC	ITRF2020	prepare a DORISmail about IDS contribution to ITRF2020 with DOIs of	2024/09/05: not done; no longer relevant	Frank Lemoine	31/01/2023	31/03/2023	closed

N°	Origin	Title	Action	answer	Resp.	Opening date	Deadline	status
			the article and the combined solution					
GB_23_17	GB	DORIS days 2023	organize online committee meetings every two weeks		Laurent Soudarin	14/02/2023	15/12/2024	open
GB_23_18	GB	ESA GENESIS	Frank writes an interest letter from IDS to ESA (recipient to be confirmed)	2024/09/05: not necessary; IDS invited to GENESIS workshop at ESOC on Thursday February 29, 2024	Frank Lemoine	29/11/2023	15/01/2024	closed
GB_23_19	GB	CDDIS updates	Taylor and Laurent prepare information for users about this update. Laurent will put them online on the website.		Taylor Yates and Laurent Soudarin	29/11/2023	15/12/2024	open
GB_23_20	GB	CDDIS statistics	Laurent draws up a list of statistics of interest to be requested from CDDIS	2024/03/08: Taylor sent statistics based on Laurent's list	Laurent Soudarin	29/11/2023	05/09/2024	closed
GB_23_21	GB	WG "NRT ionospheric application".	Ningbo proposes to the GB terms of Reference, goals and members for the WG "NRT ionospheric application".	2024/09/05: ToR, goals and member list provided to IDS BC	Ningbo Wang	29/11/2023	05/09/2024	closed
GB_23_22	GB	Virtual Meeting between IAG and UN-GGCE	the Central Bureau contacts Nicholas Brown to request the slides presented during these sessions and offer to give IDS's	2024/09/05: virtual meeting between IDS and UN-GGCE on April 26, 2024. IDS first send responses to pre-meeting questionnaire, then links and papers as additional reference resources for the preparation by UN-GGCE of an assessment of the current needs in the global geodesy supply chain	Laurent Soudarin	29/11/2023	05/09/2024	closed

N°	Origin	Title	Action	answer	Resp.	Opening date	Deadline	status
			answers to the discussion topics.					
GB_23_23	GB	WG "Sentinel Clocks Modeling"	Petr prepares the establishment of a Working Group on the introduction of GNSS clocks for DORIS data processing of the Sentinel ("Sentinel Clocks Modeling").	<a href="https://ids-doris.org/ids/organization/working-groups.html#clocks">2024/09/05: the WG is set up. Chair is Patrick Schreiner (GFZ) (see https://ids-doris.org/ids/organization/working-groups.html#clocks)</a>	Petr Stepanek	29/11/2023	05/09/2024	closed
GB_23_24	GB	Status of the strategic plan	the Central Bureau prepares and organizes an online GB meeting in February to present the status of the actions of the strategic plan	<a href="#">2024/09/05: status of actions done. To be reviewed by the Central Bureau.</a>	Laurent Soudarin	29/11/2023	15/12/2024	open
GB_24_01	GB	GB appointed members	CB asks IERS to appoint a representative for the next term 2025-2027		Laurent Soudarin	05/09/2024	15/12/2024	open
GB_24_02	GB	GB appointed members	CB asks CNES and IGN to appoint for their representative for the next term 2025-2027		Laurent Soudarin	05/09/2024	15/12/2024	open
GB_24_03	GB	GB appointed members	CB writes the call and submits it to GB for approval		Laurent Soudarin	05/09/2024	15/12/2024	open
GB_24_03	GB	WG "Integrated clock corrections for DORIS"	CB organizes regular meetings with Patrick about activity		Laurent Soudarin	05/09/2024	15/12/2024	open

N°	Origin	Title	Action	answer	Resp.	Opening date	Deadline	status
			progress of the WG clocks					
GB_24_04	GB	WG "NRT ionospheric application".	CB organizes regular meetings with Ningbo about activity progress of the WG NRT iono applications		Laurent Soudarin	05/09/2024	15/12/2024	open
GB_24_05	GB	WG "NRT ionospheric application".	review ToR, goals and member list sent by Ningbo		Frank Lemoine, GB	05/09/2024	15/12/2024	open