

DUE GlobWave

Deliverable D.32 Progress Report January 2013



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EXECUTIVE SUMMARY

This is the project summary covering progress in January 2012.

Work continues on finalising the updates to the online tool.

January saw the submission of the majority of the final project deliverables including the updated Product User Guide, Spatial WFVS Report, Annual User Assessment, Biannual Newsletter and Final Report. January also saw work finish on the various GlobWave matchups, which will be reviewed for the remaining major project deliverable, the Annual Quality Control Report. The eight, and final, QQCR was also submitted in early January and is available on the [GlobWave portal](#).

During January 7 PS-WFVS reports, from NOAA-NCEP, FNMOC, ECMWF, UKMO, PREVIMER, Puertos del Estado and BOM, were automatically generated together and used in the ensemble reports. Delays in receiving the data from Metéo-France have meant this report was unable to be produced.

No news items were published on the [GlobWave portal](#) in January.

Finally, preparations began in January for the Final Project Review meeting and the hand-over to the team managing the follow-on project.

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1 INTRODUCTION

1.1 Purpose and Scope

This is the Progress Report for the GlobWave project and forms deliverable [D.32] of the project documents. The purpose of the report is to provide a monthly update of project activities and progress over each elapsed reporting period and a projected plan of activities for the following month.

This progress report covers the elapsed period from 1st June 2010 to 31th January 2013. It summarises the activities that have been performed within the nine major work package areas described in the Project Management Plan [D.31] as well as the management activities, status of deliverables, milestones and travel, risk analysis, problem areas and activities to be performed in the coming months.

The next progress report is planned for 7th March 2013.

1.2 Definitions and Acronyms

Acronym	Description
ESA	European Space Agency
CLS	Collecte Localisation Satellites
GDR	Geophysical Data Record
HCMR	Hellenic Centre for Marine Research
Ifremer	French Research Institute for Exploitation of the Sea
L2P	Level-2-Preprocessed data
NDBC	National Data Buoy Centre
NOAA	National Oceanic and Atmospheric Administration
NOCS	National Oceanography Centre, Southampton
NRT	Near Real-Time
PM	Progress Meeting
PMP	Project Management Plan
SAR	Synthetic Aperture Radar
SatOC	Satellite Oceanographic Consultants
ST	Steering Team
UCM	User Consultation Meeting
WFVS	Wave Forecast Verification Scheme
WISE	Wave In Shallow Water

Table 1-1: Acronyms

2 PROJECT OVERVIEW

The objective of the GlobWave project is to improve the uptake of satellite-derived wind-wave and swell data by the scientific, operational and commercial user community. The project covers the development of an integrated set of information services based on satellite wave data, and the operation and maintenance of these services for a demonstration period. The project encompasses the following tasks:

- Development and maintenance of a GlobWave web portal providing a single point of reference for satellite wave data and associated calibration and validation information. The web portal shall include access to satellite wave data sets, a directory of different sources of wave data including their main characteristics, online tools providing graphical and statistical diagnostics based on comparison between satellite data streams and with *in situ* data, and a handbook for new users providing information on the characteristics of the various types of satellite wave data and how to access and utilise them.
- Inter-comparison of SAR and altimeter wave data with collocated *in situ* measurements, and cross characterisation between different satellite data streams, and between satellite and wave model data.
- Provision via the GlobWave web portal of a uniform, harmonised, quality controlled, multi-sensor set of satellite wave data and ancillary information, in a common format, with consistent characterisation of errors and biases. This data provision shall include the demonstration of new types of satellite wave data products, such as those based on new retrieval techniques, new types of satellite data, merged data from different sensors, or combinations of model and satellite data.
- Development and demonstration of a pilot extension of the JCOMM Wave Forecast Verification Scheme to include spatial inter-comparison with satellite wave data sets.

These activities are intended to make it easier for the global user community to use satellite wave data, to facilitate routine comparisons with wave models, and to stimulate the development of model assimilation.

3 PROGRESS ON MAJOR WORK PACKAGES

The following sections provide an overview of the activities performed over the elapsed reporting period and the planned activities for the coming months.

3.1 WP3000 Development of Portal and Online Tools

3.1.1 Results of Reporting Period

In January some additional work was done on the updated online tool.

3.1.2 Plans for the Coming Period

In February it is expected that the updates to the online tool will be completed and it will be finally released.

3.2 WP4000 Data Collection and Processing

3.2.1 Results of Reporting Period

In January the Product User Guide (PUG), updated for Phase 3 was submitted to ESA. January also saw *in situ* data now being collected from NDBC rather than NODC.

3.2.2 Plans for the Coming Period

In February the PUG will be reviewed and discussed in the Final Project Review meeting.

3.3 WP5000 Satellite Wave Data Error Characterisation and Intercomparisons

3.3.1 Results for the Reporting Period

January also saw completion on the various match-ups for altimeter and SAR data and processing of the missing satellite to satellite crossovers. These are needed for the Annual Quality Control Report (AQCR). The AQCR for the last quarter of 2012 was also submitted to ESA in early January.

3.3.2 Plans for the Coming Period

It is expected that the AQCR will also be submitted in early February, prior to discussion in the Final Project Review meeting on the 15th February.

3.4 WP6000 Development and Demonstration of a Pilot Extension of the JCOMM Wave Forecast Verification Scheme

3.4.1 Results for the Reporting Period

During January the PS-WFVS was periodically monitored and any data which failed to arrive on schedule was investigated. As in December, 7 reports, from NOAA-NCEP, FNMOC, ECMWF, UKMO, PREVIMER, Puertos del Estado and BOM, were automatically generated together.

Delays in receiving the data from Metéo-France have meant this report was unable to be produced

No code development work was undertaken during January. The change to use reverse proxy from the NOC web server was further investigated, but has not been implemented.

The Phase 3 Spatial-WFVS Report was submitted to ESA during January.

3.4.2 Plans for the Coming Period

In February work will continue on both improving the system and also resolving the issues around collected forecast data from Metéo-France. In particular the transfer from the development server to the operational server is planned to take place in this month.

In February the Spatial-WFVS report will be reviewed and discussed in the Final Project Review meeting.

3.5 WP7000 Communications, Outreach and GlobWave User Consultation Meetings

3.5.1 Results for the Reporting Period

3.5.1.1 Outreach Activities

Table 3-1 provides a list of all posters, presentations and papers that have either been presented or that are planned for the future. The status field is either Planned, Submitted (abstract has been sent), Accepted (abstract has been accepted) or Presented (event has occurred). This table will be updated in future issues of each PR.

Meeting	Dates	Venue	Type	Title	Status
Waves in Shallow Water (WISE)	26-30 May, 2009	Ensenada, Mexico	Poster	GlobWave: A new generation of ocean wave products	Presented
OceanSAR	7-11 September	Herrsching, Germany	Oral	Project GlobWave	Presented
OceanObs	21-25 September, 2009	Venice, Italy	Poster + Paper	GlobWave: A new generation of satellite	Presented

Meeting	Dates	Venue	Type	Title	Status
				wave products	
SeaSAR	January, 2010	ESRIN, Italy	Oral	Project GlobWave	Presented
ESA Living Planet Symposium	28 June – 2 July 2010	Bergen, Norway	Oral	Project GlobWave	Presented
IGARSS	25 July – 30 July 2010	Honolulu, Hawaii	Oral	GlobWave and Applications of Global Satellite Wave Applications	Presented
Fourth Coastal Altimetry Workshop	14 – 15 October, 2010	Porto, Portugal	Poster	The GlobWave Pilot Spatial Wave Forecast Verification Scheme	Presented
MARCDAT-III Workshop	2-6 May, 2011	ESRIN, Italy	Oral	Project GlobWave	Presented
CFOSAT Science Meeting	14 – 16 November, 2011	Brest, France	Oral	Project GlobWave	Presented
Ocean wind waves: Observing, modelling & Forecasting	22 March 2012	Liverpool, England	Poster	Project GlobWave	Presented
SEASAR 2012	18 – 22 June, 2012	Tromso, Norway	Oral	The GlobWave Project	Presented
2012 EUMETSAT Meteorological Satellite Conference	3-7 September 2012	Sopot, Poland	Oral	Project GlobWave	Presented

Table 3-1: International Events

3.5.1.2 GlobWave Steering Committee Meeting

The third and final GlobWave Steering Committee Meeting took place during the GlobWave User Meeting on the 7th and 8th of November at the European Maritime Safety Agency (ESMA) Headquarters in Lisbon, Portugal. The Minutes of this Steering Committee Meeting (D.26) have been submitted to ESA for approval.

3.6 WP9000 Reporting

3.6.1 Results of the Reporting Period

The progress report for January [D.32] and the latest version of the actions database [D.33] were submitted on Thursday 7th February 2013.

3.6.2 Plans for the Coming Period

The next progress report [D.32] is planned for submission to ESA on 7th March 2013. The executive summary will be published on the GlobWave Web Portal for the benefit of the User Group.

4 NEWS

No news items were published on the GlobWave portal during January.

5 MANAGEMENT

5.1 Funding

Nothing to report.

5.2 Invoices

Payment Milestone	%	Date	Invoice to ESA	Payment Received
Kick Off (KO)	20	KO	Yes	Yes
Progress Payment for Phase 1	45	KO+5	Yes	Yes
Final Payment for Phase 1	35	KO+12	Yes	Yes
Total for Phase 1	100			
Advance Payment for Phase 2	20	KO+13	Yes	Yes
Progress Payment for Phase 2	45	KO+18	Yes	Yes
Final Payment for Phase 2	35	KO+24	Yes	Yes
Total for Phase 2	100			
Advance Payment for Phase 3	20	KO+25	Yes	Yes
Progress Payment for Phase 3	45	KO+30	Yes	Yes
Final Payment for Phase 3	35	KO+36	No	No
Total for Phase 3	100			
Total for Contract	100		8 of 9	8 of 9

Table 5-1: Status of Invoices to ESA

The GlobWave project is approaching the end of Phase 3 with the Phase 3 Progress Payment having been approved and payment has been received.

5.3 Meetings

5.3.1 Internal

No internal meetings took place in January. The Final Project Review GlobWave meeting is planned to take place, via teleconference, on the 15th February 2013.

5.4 Actions Database

The Actions Database [D.33] records actions resulting from milestone meetings with ESA. The extract below lists the actions raised and closed for the past month, and those that remain open.

Action Ref	Action	Actionee	Actioner	Target Date	Status	Comment
GlobWave-EC230943-PM4.03	CLS to provide GWS SAR plots in digital format	F. Collard (CLS)	S. Pinnock (ESRIN)	31/01/12	Open	See PM4 minutes.

GLOBWAVE-EC230943-PM5.06	JF to investigate how to add information from the PUG onto the GlobWave portal	JF. Piolle (IFREMER)	S. Pinnock (ESRIN)	30/06/13	Open	Unlikely to happen by end of project due to other GlobWave commitments, but Ifremer can action in 2013
GLOBWAVE-EC230943-PM5.07	Logica to prepare and print out copies of the Wave Data Handbook to distribute at events and send out as a pdf.	G. Buswell (Logica)	S. Pinnock (ESRIN)	28/02/13	Open	Logica will supply link to download handbook in pdf format in the final email to GlobWave users
GLOBWAVE-EC230943-PM5.12	JFP to examine ways to create lessons / demos that highlight functionality of the online tool.	JF. Piolle (IFREMER)	S. Pinnock (ESRIN)	30/06/13	Open	Unlikely to happen by end of project due to other GlobWave commitments, but Ifremer can action in 2013
GLOBWAVE-EC230943-PM5.20	HS to complete transfer from development server to operational server by end of March.	H.Snaith (NOC)	S. Pinnock (ESRIN)	28/02/13	Open	Delayed due to described problems, expected completion at end of project
GLOBWAVE-EC230943-PM6.08	EA to investigate quality levels of Cryosat data	E. Ash (SatOC)	S. Pinnock (ESRIN)	31/01/13	Open	In progress, CryoSAT quality assessment will be included in forthcoming ACQR
GLOBWAVE-EC230943-SCM3.02	JFP to investigate how to add a GlobWave RSS newsfeed	JF. Piolle (IFREMER)	S. Pinnock (ESRIN)	31/01/13	Open	See SCM3 minutes. NB: This is expected to be completed in the GlobWave extension project.
GLOBWAVE-EC230943-SCM3.03	JFP to provide regular updates on status of the online tool	JF. Piolle (IFREMER)	S. Pinnock (ESRIN)	31/01/13	Open	See SCM3 minutes. NB: this is expected to be completed in the GlobWave extension project.
GLOBWAVE-EC230943-SCM3.04	J. Bidlot to contact all colleagues who are going to WISE or JCOMM meeting	J. Bidlot (ECMWF)	S. Pinnock (ESRIN)	31/03/13	Open	See SCM3 minutes. NB: this is expected to be completed in the GlobWave extension project.
GLOBWAVE-EC230943-SCM3.05	HS to send WFVS team details to all participants	H.Snaith (NOC)	S. Pinnock (ESRIN)	31/01/13	Open	See SCM3 minutes.
GLOBWAVE-EC230943-SCM3.06	A. Saulter to investigate MyWave and identify relevant individuals to help arrange wave meetings	A. Saulter (UK Met Office)	S. Pinnock (ESRIN)	31/03/13	Open	See SCM3 minutes. NB: this is expected to be completed in the GlobWave extension project.

Table 5-2: Extract of Action Database

The full actions database is available as deliverable [D.33], which is also provided to ESA on a monthly basis.

5.5 Status of Deliverables

The following table lists the contractual deliverables that are in preparation or have been submitted to ESA.

SOW Deliverable Reference	Project Deliverable Ref	Delivery Date	Status
[D.1] Requirements Baseline Document	GlobWave_D.1_RB_v1.4	13/10/2009	Accepted
[D.2] Technical Specification Document	GlobWave_D.2_TS_v1.2	07/12/2009	Accepted
[D.3] GlobWave Web Portal – Initial Version	www.globwave.info	15/02/2009	Accepted
[D.4] GlobWave Web Portal – Final Version	www.globwave.info	31/05/2010	Accepted
[D.5] L2P Product User Guide (Phase 1 – initial version)	GlobWave_D.5_PUG_v1.1	22/04/2010	Accepted
[D.6] Product User Guide (Phase 2 revision)	GlobWave_D.5_PUG_v2.0	17/01/2012	Accepted
[D.7] Product User Guide (Phase 3 revision)	GlobWave_D.5_PUG_v3.0	25/01/2013	Accepted
[D.8] Online Tools for Collocation Database Analysis and Graphical Display	www.globwave.info	15/07/2011	Accepted
[D.9] Handbook	GlobWave_D.9_PUG_v1.0	31/07/2011	Accepted
[D.10] L2P Satellite Wave Data (archived products)	E-mail fpaf@ifremer.fr with “GlobWave Data Access” as the subject to obtain ftp access	22/04/2010	Accepted
[D.11] Initial Demonstration Wave Products	GlobWave_D.5_PUG_v1.1 and www.globwave.info	22/04/2010	Accepted
[D.12] Global Wave Statistics	GlobWave_D.12_GWS_v1.0.doc	21/04/2011	Accepted
[D.13] L2P Satellite Wave Data (NRT products)	E-mail fpaf@ifremer.fr with “GlobWave Data Access” as the subject to obtain ftp access	16/12/2011	Accepted
[D.14] Publication of Additional Demo Products	GlobWave_D.5_PUG_v2.0 and www.globwave.info	31/12/2011	Accepted
[D.15] L2P vs. In Situ Co-location Database	E-mail fpaf@ifremer.fr with “GlobWave Data Access” as the	31/12/2010	Accepted

SOW Deliverable Reference	Project Deliverable Ref	Delivery Date	Status
	subject to obtain ftp access		
[D.16] Satellite Wave Data Quality Report	GlobWave_D.16_SWDQR_v1.0	02/11/2010	Accepted
[D.17] L2P Quarterly Quality Control Reports	GlobWave_D.17_QQCR_v1.0	15/01/2013	Accepted
[D.18] Annual Quality Control Report (Phase 2)	GlobWave_D.18_AQCR_v1.0	17/01/2012	Accepted
[D.19] Annual Quality Control Report (Phase 3)	GlobWave_D.19_AQCR_v1.0	15/01/2013	In prep
[D.20] Spatial-WFVS Report (Phase 1)	Will be contained within the first operational PS-WFVS Report	10/06/2010	Accepted
[D.21] Spatial-WFVS Report (Phase 2)	GlobWave_D.21_PS-WFVS_P2_v1.0	17/01/2012	Accepted
[D.22] Spatial-WFVS Report (Phase 3)	GlobWave_D.21_PS-WFVS_P3_v1.0	25/01/2012	Submitted
[D.23] Project Flyer	N/A	25/06/2010	N/A
[D.24] Biannual Newsletter	GlobWave_Newsletter_Feb_2013	25/01/2012	Submitted
[D.25] Minutes of First User Consultation Meeting	GlobWave_D.27_AUA1_v1.0	31/05/2010	Accepted
[D.26] Minutes of Second Steering Team Meeting	GlobWave_MoM_SCM2_v1.1	17/01/2012	Accepted
[D.27] Annual User Assessment (Phase 1)	GlobWave_D.27_AUA1_v1.0	31/05/2010	Accepted
[D.28] Annual User Assessment (Phase 2)	GlobWave_D.28_AUA2_v1.0	17/01/2012	Accepted
[D.29] Annual User Assessment (Phase 3)	GlobWave_D.29_AUA3_v1.0	25/01/2012	Submitted
[D.30] Final Report	GlobWave_D.30_FR_v1.0	25/01/2012	Submitted

Table 5-3: Status of Contractual Deliverables

If a document is in preparation but has not yet been submitted then it has status “In prep”. Once a document has been sent to ESA it has the status “Submitted”. Upon confirmation from ESA that the deliverables are satisfactory, the status will be updated to ‘Accepted’.

5.6 Status of Milestones

Milestone meetings are planned at vital points throughout the project lifetime. The status of these meetings to date is as follows.

Name	Expected Date	Venue	Purpose	Status
KO	16/01/09	ESRIN	Kick-off meeting	Completed
PM1	17/04/09	UK Met Office	Review of Requirements Baseline, Web Portal and planning for UCM-1.	Completed
PM2	16/07/09	ECMWF, Reading	Review of Technical Specification and the first newsletter.	Completed
PM3	11/03/10	Logica, Leatherhead	Review of products and services available on the GlobWave Portal, and review of final version of GlobWave Portal [D.4]	Completed
UCM-1	29/04/10	Ifremer, Brest, France	User Consultation Meeting, Steering Team meeting, review of final Phase 1 deliverables and user assessment.	Completed
PM4	KO+18	ESRIN	Review of initial operations of the Spatial-WFVS, online tools, Global Wave Statistics, the Monthly L2P Data Quality Control reports, the 2 nd newsletter and planning for UCM-2.	Completed
UCM-2	05/10/11	NMCI, Cork, Ireland	User Consultation Meeting, Steering Team Meeting	Completed
PM5	27/01/12	Logica, Leatherhead	Review of final Phase 2 deliverables and user assessment	Completed
PM6	18/07/12	ESRIN	Review of operations of the Spatial-WFVS, the Monthly L2P Data Quality Control reports and plans for the third User Consultation Meeting.	Completed
UCM-3	07/11/12	EMSA, Lisbon, Portugal	User Consultation Meeting and final review of remaining project deliverables.	Completed
FP	15/02/13	ESRIN	Final Project Review	Scheduled

Table 5-4: Status of Milestone Meetings

6 GLOBWAVE PORTAL

This section describes the statistics on access and downloads from the GlobWave web portal. There are currently 216 registered GlobWave users.

6.1 Portal Stats

	Total Portal Hits per month	Home Page hits per month	Products hits per month	About Us hits per month	News hits per month	Activities hits per month
January 2012	3465	496	612	305	356	284
February 2012	3958	751	611	256	301	299
March 2012	3917	641	723	226	370	411
April 2012	3682	430	611	250	386	224
May 2012	4512	616	880	382	514	350
June 2012	4485	544	787	196	297	380
July 2012	4405	556	651	347	547	375
August 2012	5785	2191	523	317	366	355
September 2012	3794	627	450	251	306	243
October 2012	5822	835	800	294	327	307
November 2012	6430	1535	764	243	501	271
December 2012	4748	925	559	225	435	283

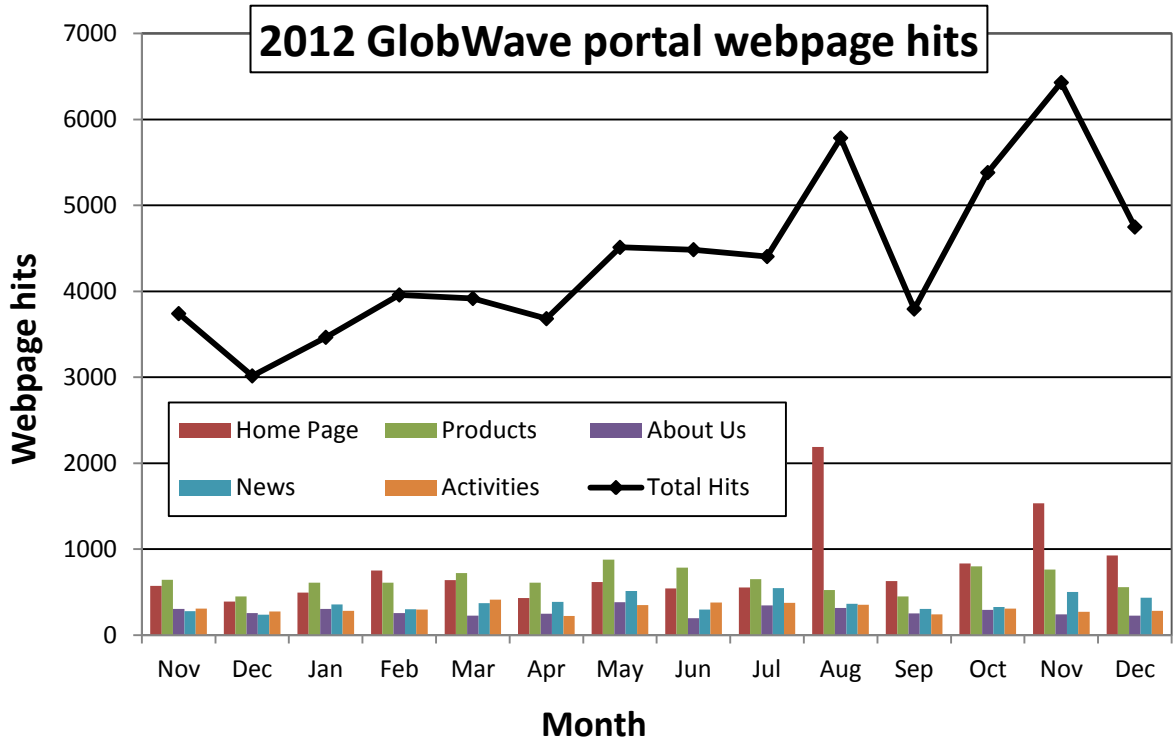


Figure 6-1: Monthly GlobWave Portal access statistics for 2012

6.2 FTP Stats

	Total Files Downloaded per month	SAR files downloaded per month	GDR files downloaded per month	SAR NRT files downloaded per month	Altimeter GDR files downloaded per month	Altimeter NRT files downloaded per month
January 2012	779317	5	7815	771403	9094	
February 2012	2290753	294047	63155	1906716	26835	
March 2012	638850	64588	4814	532851	36597	
April 2012	393221	0	5813	362774	24634	
May 2012	185267	8966	13858	160725	1718	
June 2012	725613	0	740	700951	23922	
July 2012	951573	3	55041	893979	2550	
August 2012	370878	123917	42740	201385	2836	
September 2012	7510	0	3	5394	2113	

October 2012	240552	2	56	212904	27590
November 2012	1379401	109813	2	1241050	28176
December 2012	355560	22511	2	315636	17411
January 2013	2119337	143505	4	1908708	67120

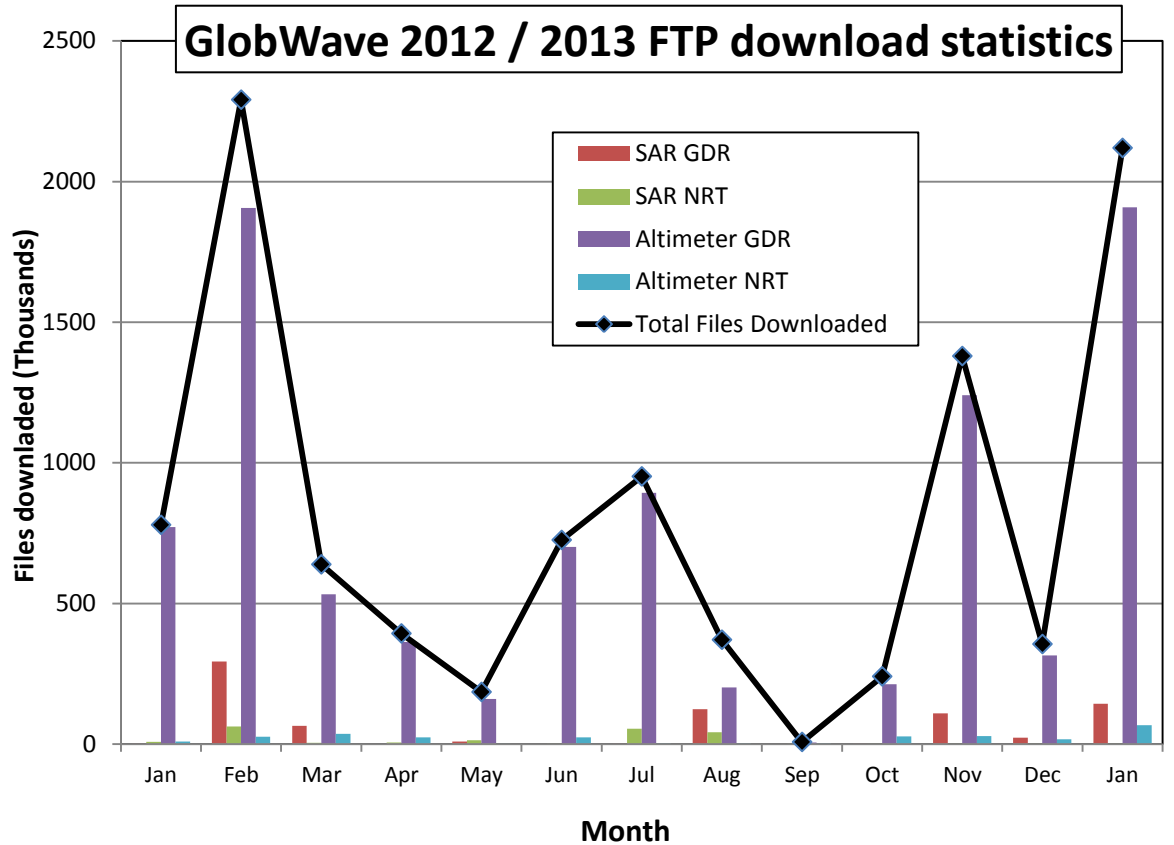


Figure 6-2: Monthly GlobWave FTP file downloads statistics for 2012 / 2013



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