



**DANGEROUS GOODS PANEL (DGP)  
MEETING OF THE WORKING GROUP OF THE WHOLE**

**Rio de Janeiro, Brazil, 20 to 24 October 2014**

**Agenda Item 6: Resolution, where possible, of the non-recurrent work items identified by Air Navigation Commission or the Dangerous Goods Panel:  
6.1: Dangerous incident and accident data collection**

**DANGEROUS GOODS COORDINATED OVERSIGHT PROGRAMME: THE PROGRESS OF  
DANGEROUS GOODS OCCURRENCE REPORT SYSTEM**

(Presented by B. Carrara)

**SUMMARY**

This information paper describes the progress that has been made on the creation of a Dangerous Goods Occurrence Report System to be used by the Regional Safety Oversight Cooperation System (SRVSOP) member States.

**1. INTRODUCTION**

1.1 It is important that any occurrence involving the transport of dangerous goods by air is reported to the appropriate State authorities in accordance with the Technical Instructions. The information received from the operators and other cargo and passenger air transportation network stakeholders is critical not only for the first responses but also to gather data about past occurrences. Having information about what has happened with the transport of dangerous goods by air is an effective way to guarantee that safety principles are being achieved.

1.2 Data analysis can be used to study information in order to search for patterns in occurrences and also to find out similar problems that might be happening, for example occurrences that involve the same type of dangerous goods in a specific area. With this information it is possible to promote actions that can prevent similar problems from occurring in the future. Examples of actions are: development of guidance material or regulations for the industry, creation of new training courses which focus on the transport of some specific dangerous goods, and oversight actions oriented to occurrences and locations where they have happened.

1.3 Annex 18 — *The Safe Transport of Dangerous Goods by Air* — recommends cooperation between States which includes sharing information about reports.

1.4 This paper presents information on a centralized dangerous goods occurrence reporting system that has been developed and is going to be hosted by the Regional Safety Oversight Cooperation System (SRVSOP) and will provide access for its member States.

## 2. REPORTING REQUIREMENTS

2.1 Reporting requirements can be split into two types: those that guide the operators and entities other than operators, provided in Chapter 4 of Part 7 of the Technical Instructions, and those that guide States, provided in Chapter 4 of Part S-7 of the Supplement of the Technical Instructions. Both of these outline the obligation of operators and States to report to other States and to ICAO in case of specific situations that involve more than one State.

2.2 Nowadays each State has its own way to manage and control reports received and to send the report to other States that may be concerned with the situation, when necessary. What is happening now is that data from all States is scattered, and usually it is not possible to look at what is happening with other States. Additionally, not all countries have a routine to share occurrences that happened in their own territory with other States or ICAO.

2.3 Discussions about sharing this kind of information generally lead to confidentiality issues that normally concern the States. This is an important aspect that has to be considered when dealing with reports.

2.4 Having said that, the Dangerous Goods Coordinated Oversight Programme (VCMP), which was created in November 2012 by an approval granted at the 25th Meeting of the General Board of the Regional Safety Oversight Cooperation System (SRVSOP), proposed the development of a system to concentrate and share reports received from all member States.

## 3. THE DANGEROUS GOODS OCCURRENCE REPORTING SYSTEM

3.1 The second phase of the VCMP project is specifically focusing on the matters of dangerous goods occurrence reports. The main objective of this phase is to develop a database that collects data from occurrences of all countries that are members of the SRVSOP. It is called the Dangerous Goods Occurrence Reporting System.

3.2 Generally speaking, when a member State of the SRVSOP receives a report from an operator or other entity, it might conduct an initial analysis to verify if the information received is indeed a dangerous good occurrence that must be reported in accordance with the regulations. It could be considered as a minor discrepancy as defined on the Technical Instructions (Part 7;1.3.1). The verified report should start an investigation process based on what has been established by the Supplement of the Technical Instructions (Part S-7;4.1). At the same time, the member State of the SRVSOP would add a record of the report on the occurrence system. The reporting procedures can be better understood by looking at Appendix A to this working paper.

3.3 It is important to point out that the system will not disoblige the operators from reporting any occurrence to concerned States in accordance with Part 7 of the Technical Instructions. It will always act according to the requirements presented in the Technical Instructions.

3.4 As shown in Appendix A, the States will be responsible for inputting the data into the system, thereby the operators still have to report to States and will not have authorization to put data into the system. If an operator reports to more than one State, the system will be capable of treating the information to prevent duplicity of data that would cause a distortion of statistics.

3.5 The system will also be capable of analyzing the reports to determine which are the concerned States, i.e. the States that must receive reports in accordance with Technical Instructions and its Supplement. The system will then send an alert to them.

3.6 One of the main concerns that the system has to deal with is confidentiality of the data. Data classified as confidential, such as the name of the shipper and the operator, will not be accepted into the system since the purpose is to share information among States and ICAO aiming at a learning culture. It is up to each State to process and deal with confidential information that has been received. The system will not publish any report unless it has been verified by the SRVSOP. This step has been created to ensure that text, images and documents uploaded to the database do not compromise the concept of confidentiality.

3.7 Since the confidential information is not visible, it is clear that the purpose of collecting data into a single database is not to encourage States to take enforcement actions against the operator and other entities. Thus, informing this intention to the industry is crucial to create a reporting culture that does not exist in many countries of SRVSOP.

3.8 Some progress has been made until now. Most of the business rules have been developed and the fields that will have to be filled into the system have already been chosen. Additionally, guidance was written to explain the principles of the system. This guidance will be part of a parallel document that is being updated by the SRVSOP, the Operations Inspector's Handbook, in a specific chapter about dangerous goods. The actual stage of the second phase of the VCMP is the development of the system. A list of fields that will be available to fill out in the system is presented in Appendix B and some initial picture examples of how the screens would look like are shown in Appendix C.

3.9 The system will be capable of generating statistics with data that have been inputted and there will be also a tab to filter and search for all reports according to specific criteria. This can help the States to interpret the data in order to search for possible issues related to the safe transport of dangerous goods in national territory or in the whole SRVSOP region.

#### 4. **MAIN ADVANTAGES**

4.1 The development of the occurrence system has many advantages:

- a) The States will be able to quickly share information with each other;
- b) The States which are not able to develop adequate tools for dealing with occurrences will have the possibility to control its own received reports using the system;

- c) A State can search the database to look for similar problems in other States and then interact with them to know how they are dealing with the situation and possibly work together developing joint actions;
- d) It is going to be possible to identify risks and immediate exchange important information on occurrences in order to minimize the likelihood of its recurrence through proactive prevention methods that have been successfully conducted in other occasions;
- e) The States will have access to a report of the region's situation that does not exist until now;
- f) The States will be able to search the database filtering the information that is more relevant to them, generating a report that can be used to implement actions that will help to achieve or maintain the safety level; and
- g) The States will not have to worry about sending reports to other States since the system can automatically trigger reports to all other states concerned according to the Technical Instructions.

## 5. CONCLUSION

5.1 The system is being developed and is expected to be functional in early 2015. From that moment on, some tests will be run to guarantee that it is working properly. The results obtained from the tests and from the first uses of the system may be presented at the DGP Working Group of the Whole in 2015. The use of the system will not be restricted to the member States of the SRVSOP; any other State that wants to participate or contribute with suggestions and improvements are invited to do so.

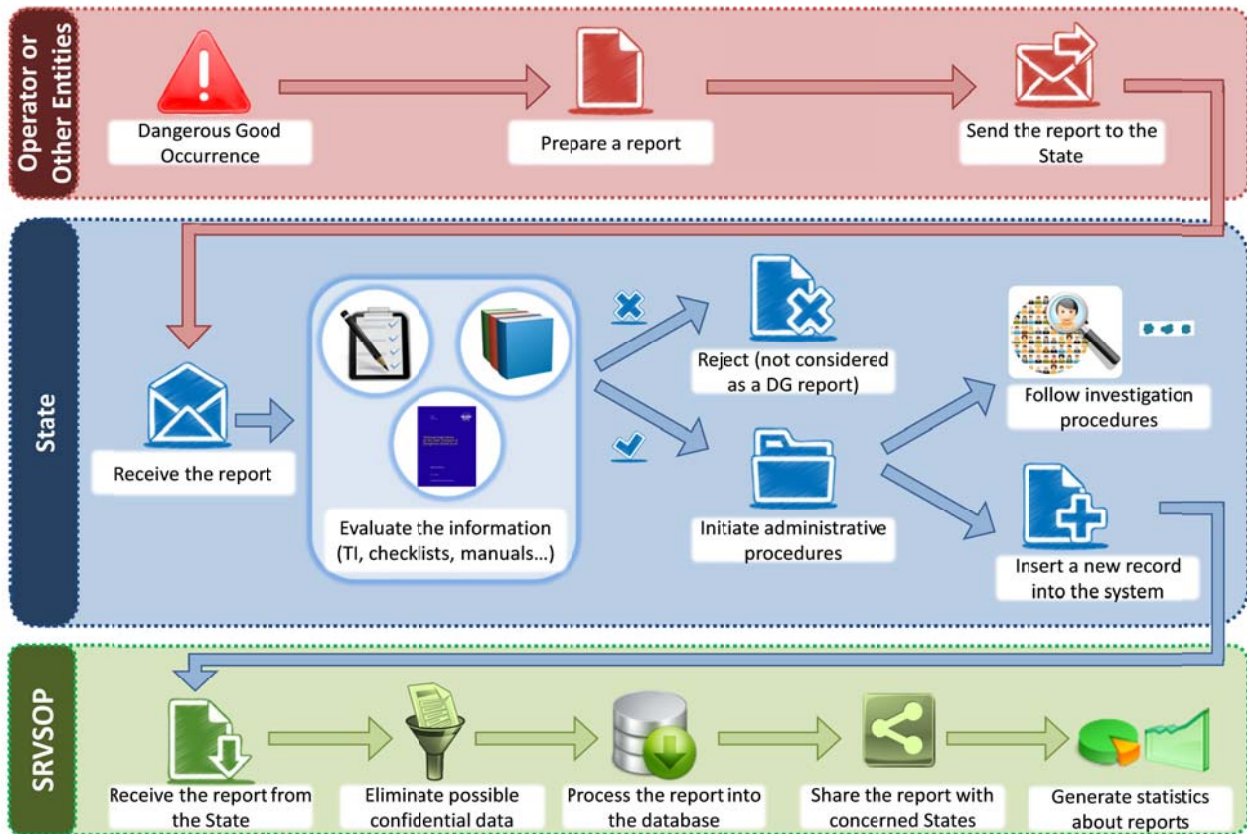
5.2 If the system has positive results, it would be recommendable to implement the same idea into other ICAO regions and worldwide.

5.3 The DGP is invited to discuss and provide feedback on the actions that have been presented in this paper. Any contributions would be valuable for the Dangerous Goods Coordinated Oversight Programme.

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## APPENDIX A

### REPORTING PROCEDURES FLOWCHART



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**APPENDIX B**

**LIST OF FIELDS TO BE FILLED OUT**

#	Field	Description	Automatic	Required
1	Report number	Primary key to identify each record in the database.	Yes	Yes
2	Report type	The user must choose an option of report type. Possible options: <i>discrepancy, incident or accident.</i>	No	Yes
3	Report category	The user must inform in which part of the chain the occurrence has happened. Possible options: <i>passengers or crew, cargo, mail or COMAT.</i>	No	Yes
4	State notifying	State that is adding the report to the system. This field is automatically filled based on the user that is connected to the system.	Yes	Yes
5	Origin	ICAO airport code where the transport was initiated or was going to be initiated. If the origin is not in the list of ICAO airport codes the user may insert a name manually.	No	Yes
6	Destination	ICAO airport code of the destination of the transport. If the destination is not in the list of ICAO airport codes the user may insert a name manually.	No	Yes
7	Occurrence	ICAO airport code where the occurrence has happened. If the origin is not in the list of ICAO airport codes the user may insert a name manually.	No	Yes
8	Operator State	The user must use the drop-down list to choose the operator's State.	No	Yes
9	Entity responsible for the report	The user must use the drop-down list to choose which kind of entity sent the report to the State. Possible options: Operator, Shipper, Airport, Forwarder.	No	Yes
10	Occurrence Date	Occurrence date.	No	Yes
11	Occurrence Time	Occurrence time.	No	Yes

12	<b>Information about Dangerous Good – UN number or ID number</b>	UN number of the main dangerous good in the report. This information will be validated with the Dangerous Goods List.	No	No
13	<b>Information about Dangerous Good – Proper Shipping Name</b>	Proper shipping name of the dangerous good. <i>There are some dangerous goods that have the same UN number but different proper shipping names. In that case, the user must inform the correct proper shipping name.</i>	No	No
14	<b>Information about Dangerous Good – Class or division</b>	The system will automatically fill this field with the divisions and/or classes of the dangerous good according to the IT.	Yes	No
15	<b>Information about Dangerous Good – Possible UN packing groups</b>	The system will automatically present the possible UN packing groups that could be used.	Yes	No
16	<b>Information about Dangerous Good – Used UN packing group</b>	The user must inform the UN packing group that was actually used.	No	No
17	<b>Information about Dangerous Good – Possible packing instructions</b>	The system will automatically present the possible packing instructions that could be used.	Yes	No
18	<b>Information about Dangerous Good – Used packing instruction</b>	The user must inform the packing instruction that was actually used.	No	No
19	<b>Occurrence specifications – Undeclared or Misdeclared</b>	Inform if the report was about an undeclared or misdeclared dangerous good. Possible options: <i>yes, no</i> .	No	Yes
20	<b>Occurrence specifications – Leakage or Spillage</b>	Inform if the report was about a leakage or spillage of a dangerous good. Possible options: <i>yes, no</i> .	No	Yes
21	<b>Occurrence specifications – Forbidden dangerous good</b>	Inform if the report was about a forbidden dangerous good. Possible options: <i>yes, no</i> .	No	Yes
22	<b>Occurrence specifications – CAO in passenger aircraft</b>	Inform if the report was about a CAO dangerous good being transported on a passenger aircraft. Possible options: <i>yes, no</i> .	No	Yes



23	Occurrence specifications – Problem with documentation	Inform if the report was about a problem with the documentation. Possible options: <i>yes, no</i> .	No	Yes
24	Occurrence specifications – Problem with marking and/or labelling	Inform if the report was about a non-compliance of the marking and/or labelling requirements present at the IT. Possible options: <i>yes, no</i> .	No	Yes
25	Occurrence specifications – Problem with the package	Inform if the report was about a problem with the package. Possible options: <i>yes, no</i> .	No	Yes
26	Occurrence specifications – Problem with information to pilot-in-command	Inform if the report was about a problem with information to pilot-in-command. Possible options: <i>yes, no</i> .	No	Yes
27	Occurrence specifications – Problem with loading, segregation, separation or securement	Inform if the report was about a dangerous goods discovered to have been carried when not loaded, segregated, separated or secured in accordance with Part 7;2. Possible options: <i>yes, no</i> .	No	Yes
28	Injury to people	Inform the level of injury to people. Possible options: <i>none, low, severe or fatal</i> .	No	No
29	Damage to property	Inform the level of property damage. Possible options: <i>none, low, severe or unusable</i> .	No	No
30	Stage in which the occurrence happened	Identifies the stage in which the occurrence happened. Possible options: <i>before or during acceptance, between the acceptance and the beginning of the transport, when being transported, after being transported</i> . <i>It is important to note that the first option should only be used if necessary, since many problems happening before or during acceptance should not be classified as an occurrence.</i>	No	Si
31	Place where the occurrence happened	Identifies the place where the occurrence has happened. Possible options: <i>Cargo Terminal, cargo compartment, main cabin, apron</i> .	No	Si

32	<b>Reference number of the occurrence</b>	The user may use this field to put an internal reference number used by the State. This field may be used to link the report number on the SRVSOP system with the report number used by the State.	No	No
33	<b>Additional comments</b>	The user may write any additional details about the occurrence. <i>Confidential data such as the operator's or shipper's identification and the number of the Air Waybill must not be written.</i>	No	No
34	<b>Upload files</b>	It is possible to upload files to the system. <i>Files that contain confidential information such as shipper or operator's names and/or logos and the number of the Air Waybill must not be sent.</i>	No	No

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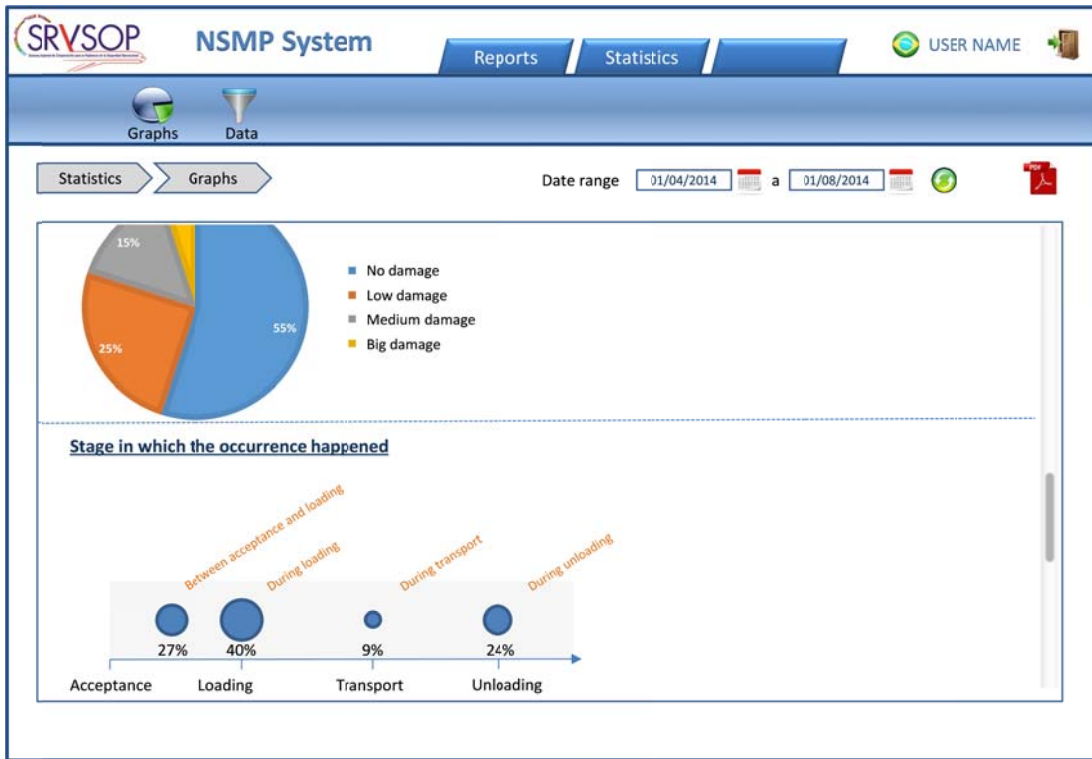
## APPENDIX C

### DRAFT OF SYSTEM INTERFACE

The screenshot displays the NSMP System interface. At the top left is the SRVSOP logo. The main header includes 'NSMP System' and navigation tabs for 'Reports' and 'Statistics'. A user profile icon labeled 'USER NAME' is on the right. Below the header is a blue bar with 'New', 'Edit', and 'Search' icons. The main content area has a breadcrumb trail 'Reports > New' and a PDF icon. The form contains the following fields:

- Date: 01/04/2014 (with a calendar icon) and Hour: [ ]
- State reporting: Brazil (dropdown menu)
- Origin: SBGR (dropdown menu)
- (...)
- UN Number: UN 3481 and Proper Shipping Name: Lithium-ion batteries packed with equipment. (text input)
- (...)

At the bottom of the form are 'Add' and 'Reset' buttons.



**SRVSOP NSMP System** | Reports | Statistics | USER NAME

Graphs | Data

Informe | Datos | Date range: 01/04/2014 01/08/2014

State reported: Brasil | Origin: SBGR | UN Number: UN 3481 | Proper Shipping Name: Lithium-ion batteries packed with equipment.

Report number	State notified	Origin	Destination	(...)	(...)	(...)	(...)	UN number	(...)
<a href="#">BR09082014</a>	Brasil	SBGR	SAEZ	(...)	(...)	(...)	(...)	UN 3481	(...)
<a href="#">BR10082014</a>	Brasil	SBGR	SBGL	(...)	(...)	(...)	(...)	UN 3481	(...)
<a href="#">BR11082014</a>	Brasil	SBGR	SCEL	(...)	(...)	(...)	(...)	UN 3481	(...)
<a href="#">BR12082014</a>	Brasil	SBGR	SLLP	(...)	(...)	(...)	(...)	UN 3481	(...)
<a href="#">BR13082014</a>	Brasil	SBGR	SBFZ	(...)	(...)	(...)	(...)	UN 3481	(...)
<a href="#">BR14082014</a>	Brasil	SBGR	SPIM	(...)	(...)	(...)	(...)	UN 3481	(...)
<a href="#">BR15082014</a>	Brasil	SBGR	MMMXX	(...)	(...)	(...)	(...)	UN 3481	(...)
<a href="#">BR16082014</a>	Brasil	SBGR	KMIA	(...)	(...)	(...)	(...)	UN 3481	(...)