EUROPEAN ORGANISATION FOR THE SAFETY OF AIR NAVIGATION

EUROCONTROL

SAFETY REGULATION COMMISSION DOCUMENT (SRC DOC)

SRC DOC 8

ECAC States' ATM Safety Regulatory Systems Overview

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Abstract

This document presents an overview of the ECAC States ATM Regulatory Systems as they been reported to SRU via the questionnaire entitled "Information Request to States Concerning the ATM Safety Regulatory Process and Associated Documentation".

Keywords

CONTACT PERSON : Antonio LICU	**TEL:** +32 2 729 3480	**DIVISION :** DGOF/SRU

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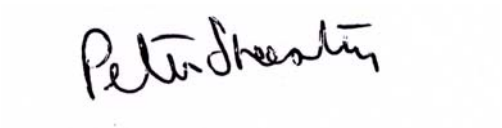
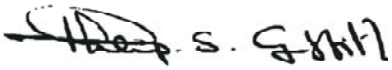
DOCUMENT APPROVAL

The following table identifies all authorities who have successively approved the present issue of this document.

AUTHORITY	NAME AND SIGNATURE	DATE
Head Safety Regulation Unit (SRU)	 (Peter STASTNY)	14.02.2001
Chairman Safety Regulation Commission (SRC)	 (Philip S. GRIFFITH)	14.02.2001

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The following table records the complete history of the successive editions of the present document.

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1.0	14.02.2001	Released Issue after approval by SRC 10	All

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EXECUTIVE SUMMARY

This document has been prepared by the Safety Regulation Commission/Unit. Its objective is to present an overview of the ECAC States' ATM Regulatory Systems as reported to SRU via the questionnaire entitled "Information Request to States Concerning the ATM Safety Regulatory Process and Associated Documentation".

The resulting information will substantially update a similar exercise carried out by SRC in 1998 , though the scope has been widened to prepare for specific safety interfaces resulting from EATMP programmes, especially RVSM.

1. INTRODUCTION

Within SRC7, within a discussion on the approval of ATM organisations, Working Paper 7.14 proposed a study of the different arrangements used by ATM safety regulators in the EUROCONTROL States for the oversight of ATC operations. This could act to improve transparency and raise safety confidence, and as a pre-cursor to development of a harmonised scheme for the organisational approval of ATM service providers.

Accordingly, the resultant decision was :-

Decision 7/11/1

The SRC fully endorsed the proposal submitted by the European Commission on Organisation Approvals. The SRC agreed that the Ad-Hoc Group of Commissioners should be tasked to investigate the feasibility of, and develop proposals for, a harmonised scheme for the organisation approval of ATM service providers.

The initial action for this task was to review the institutional arrangements within States, and a questionnaire (as advised by SRC8), was drawn up and distributed. The questionnaire, addressed to States, sought information about national arrangements for ATM safety regulation and use of safety management systems.

The questionnaire was organised in two sections, one addressed to national ATM safety regulators, and one addressed to ATM Service provider organisations. The second section was also directly dispatched to the service provider organisation(s) by the SQS Unit on behalf of Safety Group, and accordingly the data for the second part of the questionnaire was collected by SQS.

The resulting information substantially updates a similar exercise carried out by SRC in 1998, though the scope has been widened to prepare for specific safety interfaces resulting from EATMP programmes, especially RVSM.

SRU carried out the detailed analysis required in order to assess the prevailing arrangements for ATM safety regulation and the use of safety management systems. The results for these aspects are presented in section 3 of this document. The aggregated results from the second part of the questionnaire was presented by SQS during SAF 12 meeting in November 2000.

2. COVERAGE OF THE ANSWERS

States answering to the first part of the questionnaire regarding State safety regulation of ATM:

1. Austria (only to the question 1.1)
2. Belgium
3. Bulgaria
4. Czech Republic
5. Cyprus (only to the question 1.1)
6. Germany
7. Hungary
8. Ireland
9. Italy
10. Luxembourg
11. Norway
12. Portugal
13. Romania
14. Slovenia
15. Spain
16. Sweden
17. Switzerland
18. UK
19. Finland
20. Monaco (only to the question 1.1)
21. Moldova
22. Lithuania
23. Estonia
24. Latvia
25. Canada (not included in the results)

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3. STATISTICS ON STATES SAFETY REGULATION OF ATM

Information Request to States Concerning the ATM Safety Regulatory Process and Associated Documentation

#	Question	Response
1.1	Is there a safety regulator for Air Traffic Management aspects of Civil Air Transport?	YES/NO (If no please go to question 1.9 and provide a brief outline as to what the State does to ensure that changes to the air traffic management systems and operations are safe)

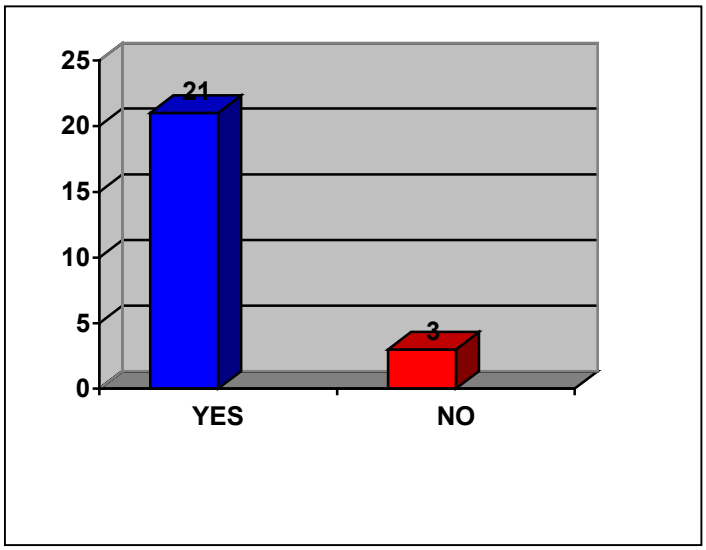


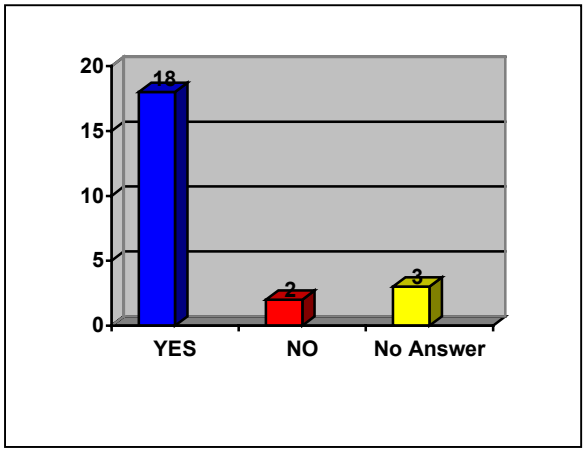
Fig. 1.1.

✎ NO: Monaco, Austria, Cyprus

✎Additional statements made by States:

- **Switzerland:** De Facto the role of the ”Safety Regulator” has to be fulfilled by the regulator, that means the civil aviation authorities. The process is at is very initial steps and so far is no formal safety unit.
- **Czech Republic:** The functions of a safety regulator are divided between Ministry of Transport and Communications and Civil Aviation Authority. The MTC is responsible and competent to issue regulations. The CAA is responsible for supervising the ATS provider (ANS –CZ) and is competent to grant approvals.

1.2	Is the ATM Safety Regulator in your State a separate organisation from : - The ATS En-route Service Provider Organisation(s) ? - The Aerodrome ATS Service Provider ?	 YES/NO YES/NO



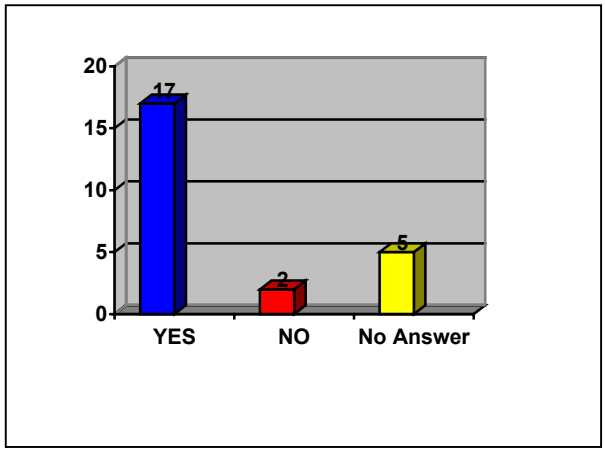


Fig 1.2.a

Fig 1.2.b

✎Additional statements made by States:

- **Luxembourg:** No national en-route service provider

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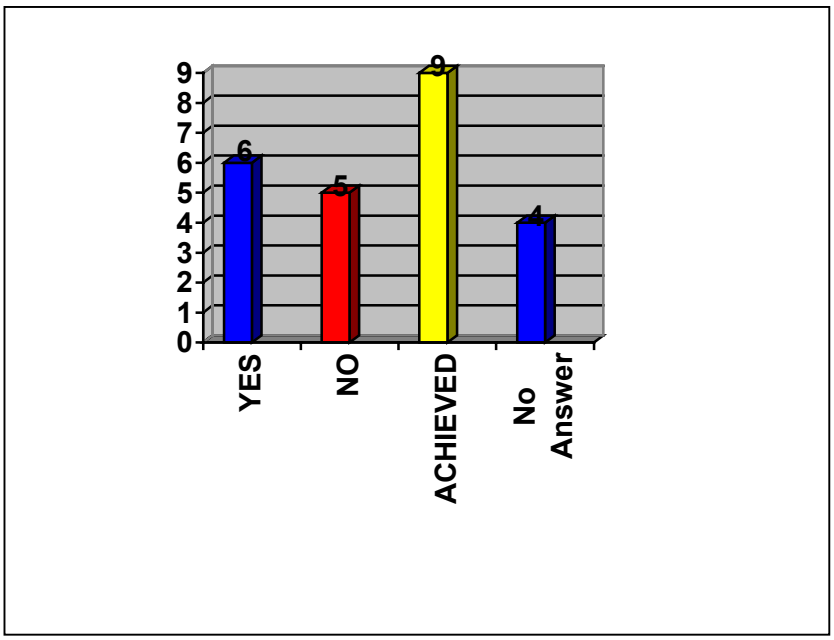
1.3	Is there an action plan in place to achieve separation of ATM Safety regulator function from ATS Service Provider function ?	YES/NO



Fig, 1.3.

✎Additional statements made by:

- **Romania:** A partial degree of separation is already achieved. There is *de facto* separation between ROMATSA (the service provider administration) and Romanian CAA, financially inclusively. However, both organisations are entirely Sate owned, under the direct subordination from the Ministry of Transports (State authority for transports in Romania), more precisely directly subordinated to the General Directorate for Civil Aviation within the Ministry of Transports. ROMATSA is administered by a Board of Administrators nominated by the Minister of Transports, Board which comprises, among others, the Director General of the Romanian CAA and the Head of the Military Airforces HQ. There is no current plan to achieve a greater degree of separation, which could be obtained, for instance, by the establishment of the RCAA as an independent organisation or by the privatisation of the service provider.

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1.4	Does the ATM Safety Regulator regulate - Civil ATS only ? - Civil and Military ATS ?	 YES/NO YES/NO

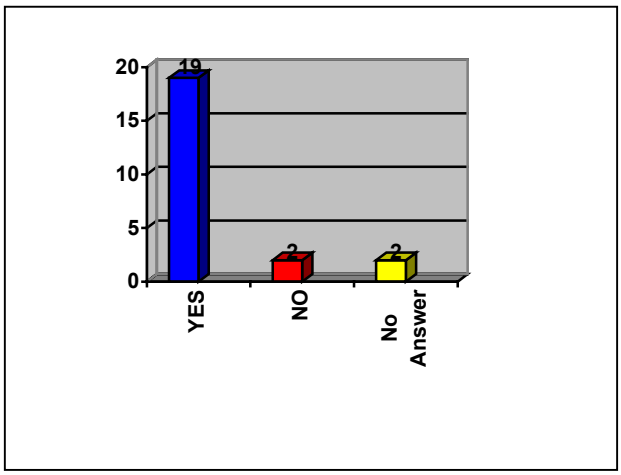

Fig 1.4.a

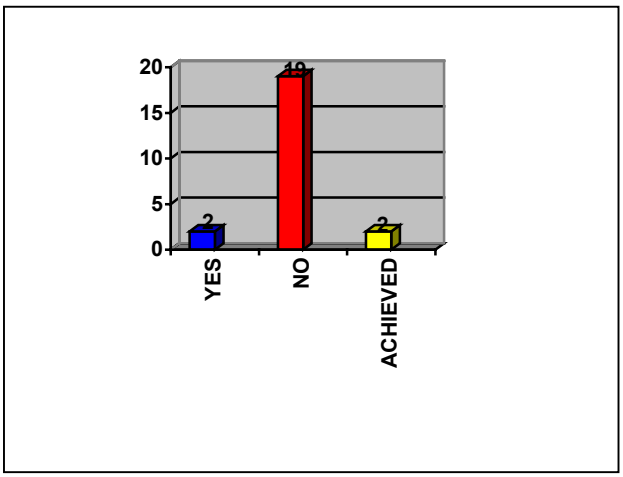

Fig. 1.4.b

✎Additional statements made by States:

- **Switzerland**: A process is ongoing to join the military and the civil ATC in the same organisation. Therefore the activities of the safety regulator will apply to both.
- **Romania**: Military ATS is regulated by the Military Airforces HQ within the Ministry of National Defence. There is continuos direct co-ordination between civil and military ATS, both at the level of service provision and at the level of the safety regulators
- **Sweden**: There is only one provider of ATS to GAT and this also includes ATS provided to Military GAT; "military ATS" provides ATS to OAT on conditions from the civil ATS
- **Germany**: 1) For en-route ATS, full civil/military integration has been achieved, providing services to GAT and OAT without distinction.
  2) At military aerodromes, military ATS personnel provides services to military and civilian air traffic.

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1.5	Who is the safety regulator for ATM? (please provide the name of the organisation, the job title of the staff position who is accountable for safety regulation of ATM and the name of the individual currently in-post and contact details)	Name and acronym for ATM regulator: Job title of staff position accountable for ATM safety regulation: Name of person currently in-post: Postal Address: Tel: Fax: Email:

Country	Name	Position
Monaco*	H. BAYOL	Chef De Service Service de l'Aviation Civile
Switzerland	Andre SAUGE	Federal Office of Civil Aviation - FOCA
Romania	Gheorghe GAVRIL	Director General Romanian Civil Aeronautical Authority – AACR
Austria*	Heinrich PRITZ	Head of ATS Planning and Navigation AUSTRO CONTROL
Sweden	Arne AXELSSON	Director Aviation Safety LFV/Luftfartsinspektionen (CAA Sweden/Aviation Safety and Security Department)
Ireland	Thomas REGAN	Irish Aviation Authority – IAA
Czech Republic	Boleslav STAVOVCIK Oldrich GORGOL	Civil Aviation Authority of Czech Rep. CAA-CZ Ministry of Transport and Communications –MDS
Bulgaria	Alexiev ZAHARI	Director General CAA
Slovenia	Marko PETERNELJ	Under Secretary For Civil Aviation Safety Ministry of Transport and Communication
Norway	Bjorn RAMFJORD	Consultant ATCO Luftfartstilsunet, Civil Aviation Authority
Italy	Renata CECCHI	Head of Navigation Office – (Circolazione Aerea) ENAC – ENTE NAZIONALE AVIAZIONE CIVILE
UK	P.S. GRIFFITH	Safety Regulation Group CAA – SRG Head of Aerodrome, air Traffic and

		Licensing Standards Division (AALSD)
Spain	Jose-Antonio CALVO	Air Navigation Safety Planning manager DGAC/SGSNAA
Hungary	Valentin OMAJNIKOV	SRC Commissioner General Directorate of Civil Aviation
Finland	Kim SALONEN	Director Flight Safety Authority FSA (Finnish CAA)
Belgium	E. Van NUFFEL	Director General BESTUUR DER LUCHTVAART
Germany	Wolf LIEDHEGENER	BMVBW
Luxembourg	Alain GENIA	D.A.C Luxembourg
Portugal	Luis Lima Da SILVA	INAC – Instituto Nacional da Aviacao Civil
Cyprus*	Savvas THEOPHANOUS	Department of Civil Aviation
Moldova	Victor TSOPA	Director general Civil Aviation Administration
Lithuania	Kestutis PELANIS Jonac CHADASEVICIUS	Senior ATCO Air Traffic Safety Manager Directorate of Civil Aviation – DCA
Estonia	K. KASKEL	Deputy to DG dealing with Flight Safety/ATS Department – Civil Aviation Administration
Latvia	Maris CERNONOKS	Chief of Air Traffic Services Department LCAA – Latvian Civil Aviation Administration

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1.6 (part 1)	Will the safety regulator provide a formal approval of changes to ATM operations ? E.g. prior to the local implementation of the RVSM, Data-Link, GNSS, ACAS, etc.	YES/NO/PARTIAL (if partial please describe) Please specify any formal approval process existing for EATMP specific programme implementation: - RVSM - Data-Link - GNSS - ACAS - Other (please specify)

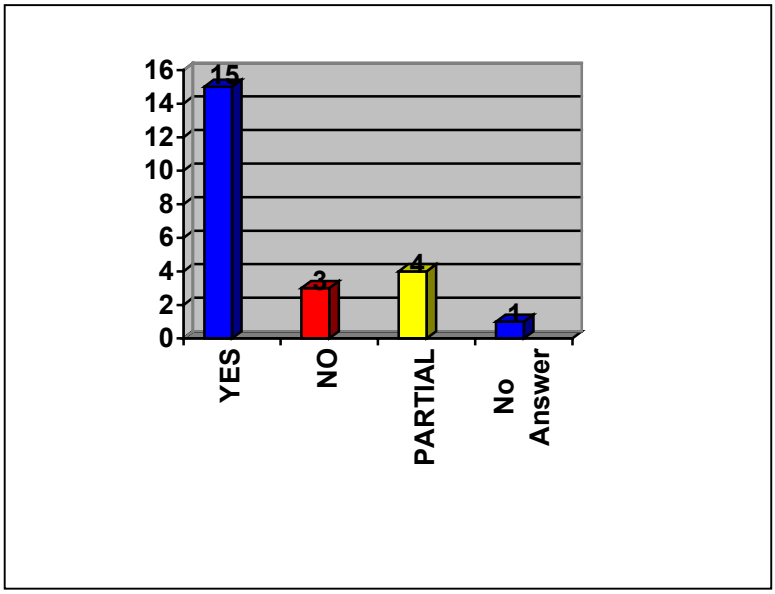

Fig. 1.6.1

✎Formal Approval existing for specific EATMP programmes implementation mentioned as follows:

- RVSM : 12 States (Romania, Sweden, Czech Rep., Bulgaria, Slovenia, Italy, UK, Spain, Belgium, Portugal, Moldova and Lithuania)
- Data-Link : 5 States
- GNSS: 6 States
- ACAS: 10 States
- BRNAV : 4 States

✎Additional statements made by States:

- **Czech Republic**: the approvals were granted only for the most important issues in the past. The new policy have been applied for approvals, which means, that all changes of operations, ATM equipment, ATM procedures and training of personnel should be approved by CAA. The ATM provider should deliver an application with relevant documents which prove compliance with standards and when necessary a safety case study. Inspectors of the CAA ATM section carry out technical finding. The head of ATM section analyse the case on the base of technical findings and recommend final decision to the Director of CAA.
- **Switzerland**: The process and its extension are not yet defined
- **Sweden**
  - RVSM, approval for training required
  - Data-Link, operation until now only comprising information like D-ATIS, approval of this has not been regarded as required
  - GNS, approval of the operation of EGNOS/Galileo will require national approval based on the work within the SRC/SRU framework
- **Romania:**
  - RVSM, YES, requirements and procedures to be observed by the service provider are issued by national regulation
  - Data-Link, YES, requirements exist and are issued by national regulation, procedures are not yet developed by RCAA
  - GNS, YES, requirements exist and are issued by national regulation, procedures are not yet developed by RCAA
  - ACAS , YES, requirements and procedures to be observed by the service provider are issued by national regulation
  - Other – BRNAV
- **UK:**
  - RVSM, Through submission of safety case by UK ATS Service Provider to the Safety Regulator. Safety Case is assessed by SRG against UK national Requirements and risk analysis techniques. Approval issued under the conditions of UK Law (Air navigation (No2) Order 1995).
  - Data-Link, idem as above
  - GNS, YES, idem as above
  - ACAS , idem as above
- **Spain:**
  - RVSM, PARTIAL, A/c operating in RVSM environment must be approved
  - GNS, PARTIAL, It is assumed GNSS SARPS are to be requirements to be met. No approval arrangements are still in place, as Safety Case in development for EGNOS is to be submitted to SRC.
  - ACAS , PARTIAL, A/c operations with ACAS shall meet national regulations to be approved
  - RNAV, PARTIAL, Aircraft operating in RNAV environment must be approved
- **Finland:** No formal approval, delegated to CAA and closely followed (and commented and consulted when necessary)
- **Estonia:** No formalities, but CAA looks after providers activities on ATM operational field and intervenes/instructs when needed
- **Latvia:** The changes to ATM operations are elaborated by ATM service provider and submitted to the Latvian Civil Aviation Administration (LCAA) for approval. When approval is granted the changes are implemented and entered into force.

1.6 (part 2)	Will the safety regulator provide a formal approval of changes to ATM Equipment ? E.g. prior to the local implementation of the RVSM, Data-Link, GNSS, ACAS, etc.	YES/NO/PARTIAL (if partial please describe) Please specify any formal approval process existing for EATMP specific programme implementation: - RVSM - Data-Link - GNSS - ACAS - Other (please specify)

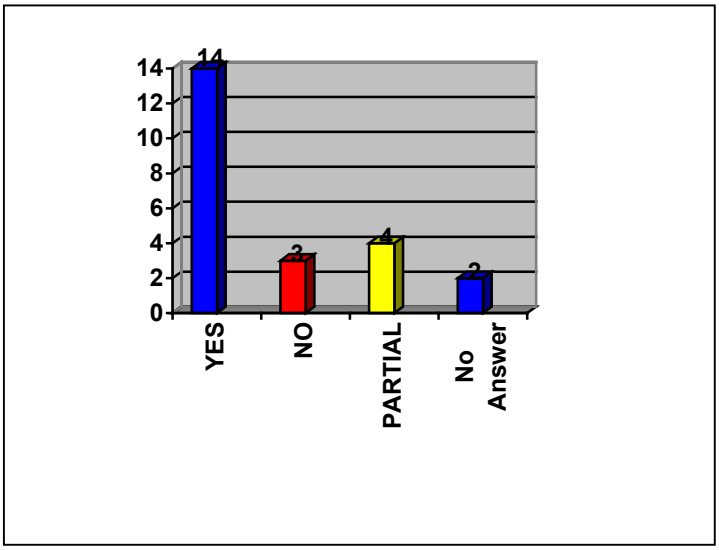

Fig 1.6.2.

✎Formal Approval existing for specific EATMP programmes implementation mentioned as follows:

- RVSM : 12 States (Romania, Sweden, Czech Rep., Bulgaria, Slovenia, UK, Spain, Finland, Belgium, Portugal, Moldova and Lithuania)
- Data-Link : 8 States
- GNSS: 8 States
- ACAS: 9 States
- BRNAV : 1 State

✎Additional statements made by States:

- **Switzerland**: The process and its extension are not yet defined
- **Sweden**
  - RVSM, approval of equipment will be included in the approval process of the new ATC system
  - Data-Link, is included in the normal approval process for equipment
  - GNSS, local area augmentation equipment will be subject to an approval process
  - ACAS, no ATC equipment recognised to approve
  - COM/SUR/NAV Systems are subject to an approval procedure
- **Romania**: Same statement as in 1.6. part 1;
- **Italy**: Only for aircraft equipment
- **UK:** ; An approval will be issued where the equipment is of direct safety significance and in relation to the part it is plays in the ATM operation. No equipment type aproval is made.
  - RVSM, see answer to item 1.6. (part1) above
  - Data-Link, see answer to item 1.6. (part1) above
  - GNS, see answer to item 1.6. (part1) above
  - ACAS, see answer to item 1.6. (part1) above
- **Finland:** All new ATM equipment approved by Flight Safety Authority (for the past 10 years);
- **Estonia:** No formalities, but CAA looks after providers activities on ATM operational field and intervenes/instructs when needed. CAA certifies aircraft – ACAS, RVSM
- **Latvia:** The changes to ATM equipment are subject to the LCAA approval. These changes are elaborated by ATM service provider and submitted to the Latvian Civil Aviation Administration (LCAA) for approval. When approval is granted the changes are implemented and entered into force.

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1.6 (part 3)	Will the safety regulator provide a formal approval of changes to ATM procedures (including airspace design) ? E.g. prior to the local implementation of the RVSM, Data-Link, GNSS, ACAS, etc.	YES/NO/PARTIAL (if partial please describe) Please specify any formal approval process existing for EATMP specific programme implementation: - RVSM - Data-Link - GNSS - ACAS - Other (please specify)

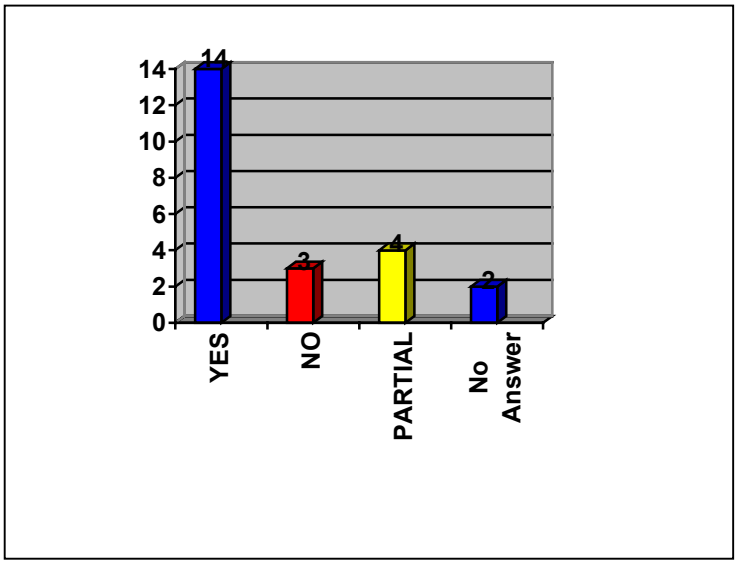

Figure 1.6.3

✎Formal Approval existing for specific EATMP programmes implementation mentioned as follows:

- RVSM : 11 States (Romania, Sweden, Czech Rep., Bulgaria, Slovenia, UK, Spain, Belgium, Portugal, Moldova and Lithuania)
- Data-Link : 7 States
- GNSS: 8 States
- ACAS: 9 States
- BRNAV : 1 State
- Airspace Design : 2 States

✎Additional statements made by States:

- **Switzerland**: The process and its extension are not yet defined
- **Sweden**
  - RVSM, is in the process for approval which will take into account the joint SRC/SRU work in the evaluation of the RVSM Safety Case as provided by the RVSM Project leader
  - Data-Link, for ATC purposes will be subject to an approval process
  - GNS, based flight procedures are subject to such a procedure
  - Airspace Design might either be approved as a project or as being the product of an approved (part of) ATS Organisation
- **Romania**: Same statement as in 1.6. part 1; any changes to airspace design are developed and issued by RCAA
- **Spain:**
  - RVSM, YES Changes in Airspace design must be approved and NO for ATS Procedures except in the cases of specific Co-ordination and Contingency Plans
  - GNSS, idem as above
  - ACAS , idem as above
  - RNAV, idem as above
- **Finland:** No formal approval, airspace design delegated to CAA but closely followed
- **Estonia:** No formalities, but CAA looks after providers activities on ATM operational field and intervenes/instructs when needed
- **Latvia:** The changes to ATM procedures are subject to the LCAA approval. These changes are elaborated by ATM service provider and submitted to the Latvian Civil Aviation Administration (LCAA) for approval. When approval is granted the changes are implemented and entered into force.

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1.6 (part 4)	Will the safety regulator provide a formal approval of changes to the Training of ATCOs, assistants and supervisors ? E.g. prior to the local implementation of the RVSM, Data-Link, GNSS, ACAS, etc.	YES/NO/PARTIAL (if partial please describe) Please specify any formal approval process existing for EATMP specific programme implementation: - RVSM - Data-Link - GNSS - ACAS - Other (please specify)

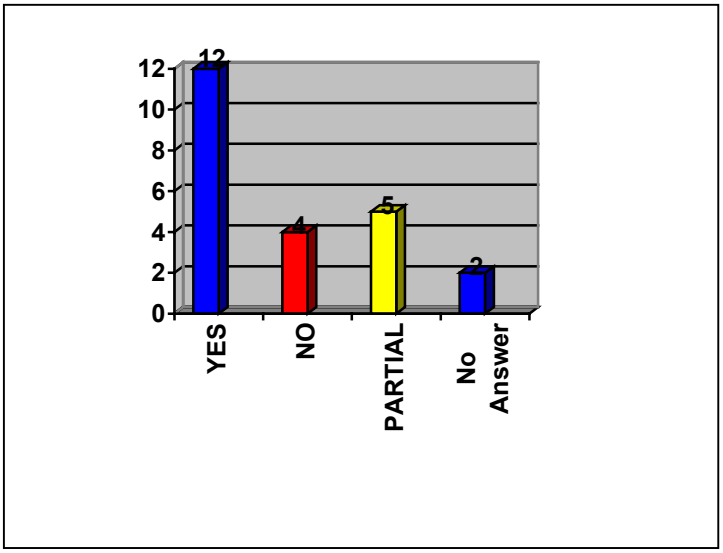

Fig. 1.6.4

✎Formal Approval existing for specific EATMP programmes implementation mentioned as follows:

- RVSM : 7 States (Romania, Sweden, Czech Rep., Bulgaria, Slovenia, Spain, Lithuania)
- Data-Link : 4 States
- GNSS: 5 States
- ACAS: 6 States
- BRNAV : 1 State
- TRAINING ATCOs : 2 States

✎Additional statements made by States:

- **Switzerland**: The training and formation of ATCO is submitted to the approval of FOCA
- **Sweden**
  - RVSM, approval for training required
- **Romania**: Same statement as in 1.6. part 1; the training programmes or any change to such programme are issued or approved by RCAA and are included in the requirements applicable to the licensing of ATC personnel in Romania
- **UK**: The safety regulator issue ATS licenses and takes licence action when required. The activities and standards of ATC training colleges are also audited and approved by the Safety Regulator.
- **Spain:**
  - RVSM, PARTIAL, The National Plan includes specific ATCOs training
  - GNS, Only if derived from the Operational Safety case
  - ACAS , PARTIAL, Specific training of ATCOs has been completed as a EUROCONTROL requirement
- **Finland:** ATCO training programmes and changes/modifications approved by Flight Safety Authority. Also for FISOs
- **Estonia:** CAA monitors ATM activities carried out by ANS and intervenes when necessary
- **Latvia:** The changes to training are subject to the LCAA approval. These changes are elaborated by ATM service provider and submitted to the Latvian Civil Aviation Administration (LCAA) for approval. When approval is granted the changes are implemented and entered into force.

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1.7	Does the safety regulator require evidence that the risks to aircraft-under-control of Air Traffic Control failures are assessed and managed?	YES/NO (If YES please briefly describe the role of such risk assessments in the regulatory process)

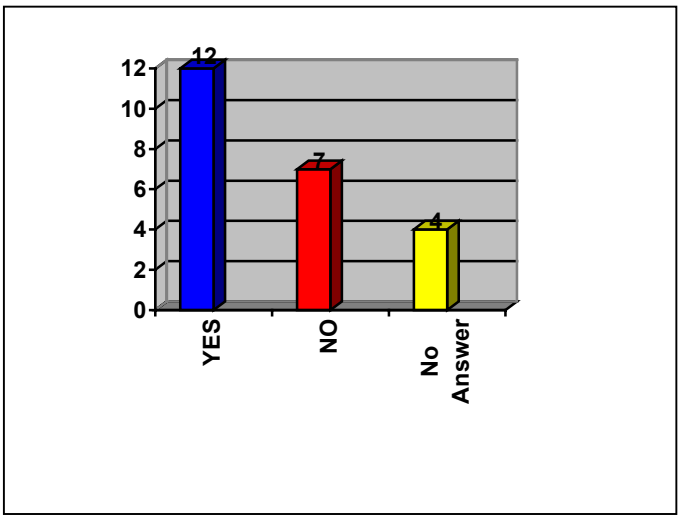

Figure 1.7

✎ Statements made by States:

- **Czech Republic**: the CAA requires ATM provider (ANS-CZ) to have functional Quality and Safety assurance system. The ANS-CZ is implementing ISQMS methodology and implementation of this method is in progress.
- **Ireland**: Yes, via systematic safety management in accordance with an SMS which provides the evidence to the ANS regulator that such risks are managed satisfactorily.
- **Switzerland**: Not done at this stage of the process
- **Sweden:** YES, but up to now this has been applied only when introducing new procedures or equipment. The risk assessment will then form part of the Safety Case for the product
- **Romania:** Risk identification and assessment as requirements in the ATM domain are to be further enforced by new requirements and procedures which are currently being developed by RCAA (to be issued towards autumn this year). Such risk assessments will generally trigger both corrective internal procedures by the service provider and corrective regulatory and safety oversight action by RCAA
- **UK:** The UK Safety Regulator requires the ATM service provider to make a formal safety argument covering the lifetime of the service or systems 9in the form of a Safety case) that assures the Regulator that safety objectives have been identified and the proposals will meet those objectives. That all the associated hazards are identified and the proposals will meet the objectives. That all the associated hazards are identified and the risks classified along with a measure of tolerability. The appropriate mitigation for the management of risk is identified and acceptable. That the service provider Management recognises and accepts the content of the safety case and risk analysis.
- **Spain:** not systematically

- **Finland:** Within the SMS of CAA ANS department
- **Estonia:** The results of the Assessments are used internally within the ANS units. Contingency plans also exists.
- **Latvia:** The risk assessment is prescribed in “Regulatory requirements for the Air Traffic Management and Air Navigation Services Safety management System” clause 3.2.2. where safety levels shall be determined in terms of risk. The management shall be maintained by system safety assessment procedures and appropriate documentation.

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1.8	Please provide reference to any international or national guidance material on the subject of functional safety of the ATM service that the safety regulator uses or requires the ATM Service Provider to consider in their implementation of, or changes to, the ATM service.	

✎States have indicated the following References:

- EATMP (including 2 direct reference to SAM) 15 States
- SRC (including 3 direct reference to ESARR 3) 8 States
- ICAO : 12 States
- National Laws: 8 States
- EU Laws : 1 State
- IEC 61508: 1 State
- JAA: 1 State
- FAA: 1 State
- ISO 9004 : 1 State
- ISO 9000-2: 1 State
- ISO 10011: 1 State

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1.9	Please provide any further details of the safety regulation of ATM that you believe are relevant. (see also the relationship with question 1.1)	

✎States have indicated the following additional details considered to be relevant:

- **Switzerland**: The Service Provider has started the preliminary work in order to define and implement a safety management system

- **Romania:** We strongly believe that effective separation between the safety regulation and service provision functions in the ATM domain is needed and most beneficial to the safety and performance of the air navigation services. The process of achieving such effective separation is not an easy task as there generally is opposition by service providers to being regulated, opposition which is more emphasised by the fact that the service provider (at least in our case) is by far better resourced organisation than the safety regulator. In our experience, although the service provider organisation is able to develop proper regulations, further submitted as draft regulatory material to the attention of Authority, it is nevertheless unable to achieve (yet) a satisfactory level of internal safety management. The safety oversight established by the RCAA is by far more productive in identifying risks and hazards and producing corrective regulatory actions.

- **Ireland:** Structure of ATM service provider organisation.

- **UK:** The development, implementation and continued use of a formal systematic Safety Management System in UK En-Route Environment is seen as a desirable method to address the management of safety in a complex and sizeable system.

- **Spain:** Safety regulation is being developed currently in terms of transitional requirements to safety regulation under an environment of safety management system implemented by the provider; Structural separation between regulator and provider has been performed.

- **Hungary:** In close co-operation with, and guidance of EUROCONTROL we have started to develop our National Safety Policy. Draft of the National RVSM Plans was introduced recently. We could require further assistance from EUROCONTROL on expertise level, and Safety Management training to develop our other National Plans (e.g. GNSS, data-Link, ACAS, etc.).

- **Finland:** The Finnish ANS./ATM was audited in 1988 by UKCAA on request from Finnish Ministry for Transport. Main results: ANS of the Finnish CAA are generally safe, personnel well trained and FSA and CAA sufficiently separated

- **Monaco:** Airspace above 1000ft is delegated to the French ATS Services

- **Germany:** The SMS of the ATM-Provider is widely in compliance with ESARR . further improvement in progress to fulfil all requirements. Also the Ministry of Defence endeavours to fulfil the requirements of ESARR 3 for military local operations. Due to organisational problems, this task will take some more time.

- **Luxembourg:** National ANSP (Luxembourg APP) provides ANS in Luxembourg TMA (and adjacent areas where ANS have been delegated by Belgian and German authorities) between ground and FL135 maximum. This is the reason why EATMP programmes generally don't involve national ATM operations, equipment, procedures or ATCO's staff. The DAC is a new Air Transport Authority (established in June 1999) within Luxembourg Civil Aviation. Regarding national programmes and recently difficulties encountered with equipment implementation, study is ongoing in order to set off an approval process for major changes in our ATM system

- **Latvia:** The LCAA requirements "Regulatory requirements for Air Traffic Management and Air navigation Services Safety Management Systems" foresees that ATM Service provider shall prepare the Safety Management Manual (SMM). The SMM is subject to the approval by LCAA. The SMM shall include all operational areas of national ATM service provider. One of the key points is to establish two level of Safety organisation oversight levels Safety Oversight Committee and the Service Provider Organisation Safety Committee. Also, the national requirement foresees the need for safety audits to be carried out on a regular basis, and there are established recommendations for safety auditor qualification, TOR, responsibilities.

- **Austria:**
  1) AUSTRO CONTROL and the former Federal Office of Civil Aviation have a long tradition in setting their own Safety Standards and in applying them as well.
  2) These Safety Standards are based on available standards, recommendations and guidelines and re, on the understanding that there is no outside regulator, interpreted and applied even more than one hundred per cent.
  3) Where no international documentation is available, guidelines are derived from similar material
  4) Although this is not prescribed or documented in detail, this procedure is performed in co-operation by the OPS division and the technical and data processing divisions.

- **Cyprus:** The existing procedures are quite adequate and safe. In Cyprus Civil Aviation there is a government service and all safety aspects are guaranteed by the Government laws.

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4. CO-ORDINATES OF THE PERSONS WHO COMPLETED THE QUESTIONNAIRE – SECTION 1 – STATE SAFETY REGULATION OF ATM:

Country	Name	Position
Monaco*	H. BAYOL	Chef De Service Service de l'Aviation Civile
Switzerland	Andre SAUGE	Federal Office of Civil Aviation - FOCA
Romania	Vlad Nicolae LEU	Director for Air Navigation Services Romanian Civil Aeronautical Authority – AACR
Austria*	Heinrich PRITZ	Head of ATS Planning and Navigation AUSTRO CONTROL
Sweden	Egil CEDERBORG	Manager, ANS and Aerodromes Standards Office – LFV (CAA Sweden/Aviation Safety and Security Department)
Ireland	Thomas V. REGAN	ANS Regulator Irish Aviation Authority – IAA
Czech Republic	Jiri KANAK	Head of ATM Section Civil Aviation Authority of Czech Rep. CAA-CZ
Bulgaria	Gueorgui ANGUELOV	ATSA Safety and Quality Control Director ATSA Bulgaria
Slovenia	Robert SEGULA	Safety Manager CAA Slovenia
Norway	Bjorn RAMFJORD	Consultant ATCO Luftfartstilsunet, Civil Aviation Authority CAA Norway
Italy	Corado AIOSSA	Head of Operations Division ENAV
UK	Harry DALY	Head of ATS Safety Regulation policy SRG - UK Civil Aviation Authority
Spain	Jose-Antonio CALVO	Air Navigation Safety Planning manager DGAC/SGSNAA
Hungary	Valentin OMAJNIKOV	SRC Commissioner General Directorate of Civil Aviation Ministry of Transport and Water Management
Finland	Jaakko KASKIA	Head AGA, ANS Regulation Division Flight Safety Authority FSA (Finnish CAA)
Belgium	Dr. Erik MERKX	Vice President Business Excellence Belgocontrol
Germany	Gerhard BAUSCHLEIN	Air Navigation Services Division BMVBW
Luxembourg	Alain GENIA	Conseiller Navigation Aerienne D.A.C Luxembourg
Portugal	Luis Lima Da SILVA	Director Operations and Safety INAC – Instituto Nacional da Aviacao Civil
Cyprus*	Savvas THEOPHANOUS	Department of Civil Aviation
Moldova	Konstantin SOMOV	Head of ATS Department Civil Aviation Administration
Lithuania	Alsimantas RASCIUS	Acting Director General

		Directorate of Civil Aviation – DCA
Estonia	K. KASKEL	Head of ATS Department Estonian CAA
Latvia	Maris CERNONOKS	Chief of Air Traffic Services Department LCAA – Latvian Civil Aviation Administration

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