

NATO UNCLASSIFIED



NATO Communications and Information Agency
Agence OTAN d'information et de communication

ACCS SYSTEM MANAGER COURSE SYLLABUS

Version 3.0



AirC2 Training Group
Education and Training Service Line

Authority Page

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1.1	Added new modules	All
1.2	Added new modules	All
2.0	Major Course Update	All
3.0	Annual Review and new modules added	8-18

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1 Introduction

1.1 Aim of the Course

The aim of the course is to enable personnel with limited pre-requisite training to be able to fulfil the duties of the ACCS System Manager.

1.2 Summary of Training Requirements

The ACCS System Manager Course for the baseline LOC1 BL 5 is a single standalone course, not necessarily linked to other NCI Agency Courses.

1.3 Eligibility

Applicants for this course are required to have a basic understanding of UNIX, Solaris and Oracle. If the course is oversubscribed SHAPE will set priorities.

1.4 Duration

The course duration is 5 days.

- a. Training Day : 09:00 - 16:00
- b. Breaks: Coffee 10:00 - 10:20 and 15:00 - 15:20
Lunch: 12:30 - 13:30

1.5 Security Classification

The course is delivered within a NATO Secret environment; therefore, the students must provide a copy of their Security Clearance before entering the NCIA Glons premises. Without a Security Clearance the students will not be able to attend the course.

Course contents are the following classification:

- Slides: NATO RESTRICTED
- Network: NATO RESTRICTED
- Classroom: NATO RESTRICTED
- Media: NATO RESTRICTED
- Discussion Topics: NATO RESTRICTED

1.6 Sponsor

The overall sponsor of the ACCS System Manager Course is the head of the AirC2 Training Group.

1.7 Training Executive

The person with overall responsibility for the training at NCIA Glons is the Chief Individual Training. This responsibility can be delegated when required.

1.8 Class Size

The maximum numbers of students is set to 10 due to workstation and instructor availability. Seats for observers, with no workstation, are available.

NCI Agency reserves the right to cancel any course if the number of students is less than 4.

1.9 Review Date

To ensure that the course is effective and current the AirC2 Training Group aim to do a full review of course material annually. Parts of the course can be updated before this time if needed.

1.10 Additional Information

1.10.1 Location and Timings

This course is given at NCI A Glons. On site delivery can be negotiated.

All the classes will start at **09:00 till 16:00**, only the **last course day** it finished around **13:00**.

1.10.2 How to Apply

Students apply by using the NCI A Course Application System (Studaba) available on the NCI A webpage.

Link to Training Portal: <https://www.ncia.nato.int/Our-Work/Pages/Education-and-Training.aspx>

1.10.3 Certification

Students who successfully complete this course will receive a certificate for the ACCS System Manager Course.

2 Course Content

Table 1 – Course Content

Module 01: Introduction to ACCS	
1.1	Purpose of ACCS
1.2	System Description
1.3	Operational Functions and Objectives
1.4	Role Concept and Entities
1.5	Operator Roles
Module 02: ACCS High Level System Overview	
2.1	Design Characteristics
2.2	Hardware Architecture
2.3	Software Architecture
Module 03: Redundancy	
3.1	Advantages
3.2	SRS and Workstation
3.3	ADP
3.4	MPS Clustering
3.5	DSS Clustering
3.6	DSS Services
3.7	MPS Services
Module 04: Fundamental Knowledge	
4.1	Workstation Types and Configurations
4.2	Log-on Procedure
4.3	Two-Person Rule
Module 05: ACCS System Environment	
5.1	Common Alert Display (CAD)
5.2	Common State Display (CSD)
5.3	System Control and Management (SCM)
5.4	ACCS Explorer

5.5	ACCS Tote System
5.6	ACCS GIS
5.7	Launch Bar
Module 06: System Manager	
6.1	Tasks
6.2	Responsibilities
6.3	Resources
6.4	Maintenance PC
6.5	Media Box
6.6	Voice Communication System
Module 07: Documentation and Information	
7.1	IETM
7.2	AIP
7.3	CDRLs and ENBs
Module 08: Voice Communication System	
8.1	VCE Hardware Overview
8.2	Maintenance Support Tools
Module 09: Solaris Commands	
9.1	Navigation & File Management
9.2	View and Search
9.3	VI
9.4	Access Rights
9.5	Process Management
9.6	System Variables

Module 10: Operator Accounts	
10.1	User Account Management
10.2	User Account Requirements
10.3	Finding UserIDs
10.4	User Account Creation
10.5	User Account Deletion
10.6	User Account Modification
10.7	User Account Duplication
10.8	Reset a User Password
10.9	Bulk User Creation
10.10	Identify Workstation
10.11	Force Logout
Module 11: Provisioning Manager	
11.1	Overview
11.2	Interface
Module 12: Security Polices and Access Control	
12.1	Security Parameters
12.2	Policies
12.3	Access Control
Module 13: Selang	
13.1	Overview
13.2	Useful Commands
13.3	GUI
Module 14: Clusters, Resource Groups and Resources	
14.1	Overview
14.2	Function
14.3	Useful Commands
14.4	Cluster Concepts

Module 15: Mission Planning Server Capabilities	
15.1	OPUS /ASAP CSCI
15.2	DIPLAS CSCI
Module 16: Mission Execution Server Capabilities	
16.1	MISEXC CSCI
16.2	Sensors CSCI
Module 17 - 21: Physical Servers and Hardware	
17	ACS
18	DSS
19	MPS
20	MXS
21	SRS
Module 22: ILOMs	
22.1	Overview
22.2	Accessing
22.3	Types
22.4	Web Interface
Module 23: Hostnames and Aliases	
23.1	Overview
23.2	How to find
23.4	Examples
Module 24: Time Server	
24.1	Overview
24.2	Implementation
24.3	Diagnostics
24.4	File Locations

Module 25: Crontab	
25.1	Overview
25.2	Syntax
25.3	Example
25.4	Access Control
25.5	File Locations
Module 26: Virtual Machines	
26.1	Administration VM (ADVM)
26.2	CISCO VM (CISVM)
26.3	Identity Manager VM (IMVM)
27.4	JSHOST (JumpStart Host)
28.5	Security VM (SECVM)
29.6	Universal VM (UNIVM)
Module 27: Start-up and Shutdown	
27.1	System Shutdown
27.2	System Start-up
Module 28: ACCS sentry Scripts	
28.1	Overview
28.2	Accessing
28.3	Scripts
Module 29: ACCS Chat Capability	
29.1	Overview
29.2	Installation Considerations
29.3	Openfire Chat server
29.4	Chat Client
Module 30: Putty	
30.1	Overview
30.2	Interface
30.3	Use in ACCS

Module 31: VSphere	
31.1	Overview
31.2	Operation
31.3	Interface
Module 32: Active Directory	
32.1	What is a directory service?
32.3	Domains, Tree, Forests, Organisational Units
32.4	ACCS Implementation
Module 33: Filezilla	
33.1	Overview
33.2	Use
Module 34: Xming	
34.1	Overview
34.2	Access
34.3	Configuration
Module 35: Storage and Common Array Manager	
35.1	StorageTek 2500-2 Features
35.1	SAS
35.3	Shared Storage Benefits
35.4	Common Array Manager
Module 36: Software and Tools Summary	
36.1	Consolidated List
Module 37: RAID	
37.1	Overview
37.2	RAID 0,1, 5, 6
Module 38: Software Update and Version	
38.1	Importing Software
38.2	CA IT Client Manager

38.3	Package Deployment
38.4	Package Removal
Module 39: Entity Management and Monitoring	
39.1	Node Control
39.2	Application Control
39.3	Software Status
39.4	Network and System Management
39.5	CISCO LMS
39.6	Oracle Solaris Cluster
Module 40: Site Configuration	
40.1	Site Configuration Tools
40.2	Site Configuration Plans
40.3	Terminate Session
40.4	Site Position Tool
Module 41: Data Reduction	
41.1	Overview
41.2	Implementation
41.3	User Interface
41.4	Responsibility
Module 42: Session Recording and Replay	
42.1	Recording
42.2	Playback
Module 43: DRS Management	
43.1	Overview
43.2	Interface

Module 44: Simulation	
44.1	Overview
44.2	Sessions
44.3	Simulation Types
44.4	Live/Sim Data Separation
44.5	Phases and Components
44.6	SPT007 Tasks
Module 45: Data Distribution	
45.1	ACCS Data Distribution
45.2	SonicMQ
45.3	XOMail
Module 46: SonicMQ	
46.1	Overview
46.2	Advantages
46.3	Features
46.4	Brokers and Containers
46.5	Status Checking
46.5	System Manager Tasks
Module 47: XOMail	
47.1	Overview
47.2	Implementation
47.3	Services
47.4	Routing
47.5	Security
47.6	Checking Status
Module 47: Weblogic	
47.1	Overview
47.2	Checking Status

Module 49: Common ACCS Database	
49.1	Purpose
49.2	Static vs Dynamic Data
49.3	Updates
49.4	Access
Module 50: LDAP	
50.1	Overview
50.2	Viewing
50.3	Searches
Module 51: GIS Updates	
51.1	Overview
51.2	Updating GIS
Module 52: Audit and Audit reporting	
52.1	Audit System Overview
52.2	eTrust Manager
52.3	Policy Manager
52.4	Reporter
52.5	Audit Report
Module 53: Audit Policy Manager	
Module 54: Audit Reporter Viewer	
Module 55: Audit database	
55.1	Purpose
55.2	Access
Module 56: Backup and Recovery	
24.1	Configuration
24.2	Status Checking
24.3	Restarting hung Jobs
24.4	Adding and Removing Tapes

24.5	Replacing Cleaning Tapes
24.6	Backup procedure
24.7	Restore procedure
Module 57: Tape Archive Libraries	
57.1	Overview
57.2	Accessing
57.3	Interface
Module 58: Fault Monitoring and Control	
58.1	Fault Identification
58.2	Finding Fault Procedures in IETM
58.3	Fault Resolution
Module 59: Hardware Maintenance	
59.1	Maintenance Concepts and Organisation
59.2	Maintenance tasks using IETM
59.3	Hardware Maintenance Software Support
59.4	Solaris Host Maintenance
59.5	Cisco Device Management
Module 60: Firewall	
60.1	Network Security
60.2	ACCS Security Features
60.3	Firewall Monitoring
Module 61: Log Files and Licenses	
61.1	Logs
61.2	Licenses
Module 62: Working With In-service Support	
62.1	Collecting Logs
62.2	Submitting Logs
62.3	Ticket System

Module 63: Troubleshooting	
63.1	Monitoring Tools
63.2	Repairing Tools

3 Publications, Equipment and Resources

Table 2 - Publications, Equipment and Resources

Serial Nos	Type	Equipment	Qty
2	Hardware	Projector	2
2	Hardware	Windows Computer for Instructor	1
3	Hardware	ACCS String (covering all servers, drives, hubs etc.)	1
4	Hardware	Workstations (Thin Clients)	26
5	Hardware	Monitors	26
6	Hardware	Maintenance PC	2
7	Software	Media Box	1
8	Course Media	Course Slides Course Handouts Course Handbook	15

4 Assessment

4.1 Prerequisites

The students should background in system administration and knowledge of UNIX, Solaris and Oracle.

4.2 Learning Assessment

This is based on learning by doing. Assessment of whether the student has reached the training objectives is performed in an active dialog between student and instructor, mainly during the practical exercises and labs, and by the student performing a multiple choice test.

5 Administration

5.1 Dress Code

Dress code is duty uniform in accordance with national rules for military personnel. For civilians smart casual style clothing can be worn. (No sportswear).

5.2 Security Clearance

All students must provide valid Security Clearance.

5.3 Accommodation

Students must arrange their own accommodation.

5.4 Transportation

Students must arrange their own transportation. There are no resources available at the NCIA Glons to perform airport pickups etc.

5.5 Food and Drink

The cafeteria at NCIA Glons will be open for all students during their stay at NCIA Glons. They serve coffee, cakes or a hot meal during the lunch break. No breakfast or dinner is served at the cafeteria.

5.6 TAX Free Shopping

Students can use the NCIA Glons Ration Item Store during their visit providing that they provide a valid NATO Travel Order and they are at NCIA Glons for a minimum of 8 working days.

Annex A Acronyms

Acronyms used in this course include:

ACCS	Air Command and Control System
ACC	Air Control Centre
ADP	Automated Data Processing
ARS	ACC RPC SFP
ASAP	ACCS Special Application Programmes
ATC	Air Traffic Control
AWCIES	ACCS-wide Common Information Exchange Standards
BMDOC	Ballistic Missile Defence Operations Centre
CAD	Common Alert Display
CAOC	Combined Air Operations Centre
CARS	CAOC ARS RPC SFP
COTS	Commercial Off The Shelf
CSCI	Computer Software Configuration Item
CSD	Common State Display
CSE	Communication Security Equipment
DARS	Deployable ARS
DCAOC	Deployable Combined Air Operations Centre
DCS	Data Communication Equipment
DIPLAS	Mission Preparation
DSS	Data Storage and Services Server
GIS	Geographic Information System
GUI	Graphical User Interface
HMI	Human Machine Interface

HWCI	Hardware Configuration Item
HVE	High Visibility Events
IETM	Interactive Electronic Technical Manual
ILOM	Integrated Lights Out Manager
JFACC	Joint Force Air Component Command
LAN	Local Area Network
LDAP	Lightweight Directory Access Protocol
LOC1	Level of Operational Capability 1
MASE	Multi AEGIS Site Emulator
MISEXC	Mission Execution CSCI
MISSUP	Mission Execution Support Applications
MPX	Mission Execution and Planning Server (Old Terms: MXS, MPS)
NADGE	NATO Air Defence Ground Environment
NRT	Non Real Time
GEADGE	German Air Defence Ground Environment
NATO	North Atlantic Treaty Organisation
OPUS	Mission Planning Support Applications CSCI
QRP	Quick Reaction Package
RAP	Recognized Air Picture
RPC	RAP Production Centre
RT	Real Time
SAN	Storage Area Network
SCM	System Control and Management
SFP	Sensor Fusion Post
SM	System Manager
SQOC	Squadron Operations Centre

SRV	Server
SSI	Software Significant Item
TDL	Tactical Data Link
TPR	Two Person Rule
VCE	Voice Communication Equipment
VCF	Voice Communication Facilities
VM	Virtual Machine
WAN	Wide Area Network
WOC	Wing Operations Centre