

3.2 Medical Requirements Overview

TABLE 3.2: MEDICAL REQUIREMENTS OVERVIEW

MEDB# and Title:	MEDB 1.6 Resting ECG
Sponsor:	Medical Operations
IPT:	N/A
Category:	Medical Requirements
References:	SSP 50260 ISS Medical Operations Requirements Document (MORD) SSP 50667 Medical Evaluations Document (MED) Volume B Section 1.6
Purpose/Objectives:	To assess pre- and postflight ECG recordings on long-duration flight crew members at rest using a 12-lead electrocardiogram (ECG)
Measurement Parameters:	12-lead ECG tracing
Deliverables:	Pre- and postflight ECG reports related to the cardiovascular examination.
Flight Duration:	≥ 30 days
Number of Flights:	All
Number and Type of Crew Members Required:	All prime and back-up crew members for preflight and postflight.
Other Flight Characteristics:	N/A

3.3 Preflight Training – No Preflight Training

3.4 Preflight Activities

TABLE 3.4: PREFLIGHT ACTIVITIES

Preflight Activity	Description:	Subject lies supine for 15 minutes while ECG tracings are recorded from 10 electrode sites (using chest and limb leads).			
	Schedule:	Duration:	Schedule:	Flexibility:	Blood Volume:
		15 minutes	AME L-9/6 m to L-10 d & as clinically indicated	N/A	N/A
Ground Support Requirements Hardware/Software	Preflight Hardware:	Preflight Software:		Test Location:	
	12-lead electrocardiogram (ECG) machine Electrodes and skin prep supplies	N/A		JSC /Russia	
Testing Facilities	Minimum Room Dimensions:	Number of Electrical Outlets:	Temperature Requirements:	Special Lighting:	
	Normal Exam Room approx. 10'x10'	2 (U.S. 110V, Russia 220V)	20° - 25°C	N/A	
	Hot or Cold Running Water:	Privacy Requirements:	Vibration/Acoustic Isolation:	Other:	
	N/A	Private room, free from distractions	N/A	Gurney (or equivalent), small table, 1 chair	
Constraints/Special Requirements:	No caffeine or alcohol for 12 hours prior to testing.				
Launch Delay Requirements:	N/A				
Notes:	See MED Vol B FSA Matrix: Monthly in-flight MO-1 for FSA crewmembers.				
Data Delivery	Data/Report to Designated Recipients (Nominal/Contingency):				
	Reports will be delivered to the crew surgeon within 24 hours of testing.				

3.5 In-Flight Activities – No In-flight Activities

3.6 Postflight Activities

TABLE 3.6: POSTFLIGHT ACTIVITIES

Postflight Activity	Description:	Subject lies supine for 15 minutes while ECG tracings are recorded from 10 electrode sites (using chest and limb leads).				
	Schedule:	Duration:	Schedule:	Flexibility:	Blood Volume:	Personnel Required:
		15 minutes	R+0/3 days & as clinically indicated	N/A	N/A	Technician, crew member
Ground Support Requirements Hardware/Software	Postflight Hardware:	Postflight Software:		Test Location:		
	12-lead electrocardiogram (ECG) machine Electrodes and skin prep supplies	N/A		JSC/KSC/Russia		
Testing Facilities	Minimum Room Dimensions:	Number of Electrical Outlets:	Temperature Requirements:	Special Lighting:		
	Normal Exam Room approx. 10'x10'	2 (U.S. 110V, Russia 220V)	20° - 25°C	N/A		
	Hot or Cold Running Water:	Privacy Requirements:	Vibration/Acoustic Isolation:	Other:		
	N/A	Private room, free of distraction.	Gurney (or equivalent), small table, chair			
Constraints/Special Requirements:	No caffeine or alcohol for 12 hours prior to testing.					
Early Destow / Early Return:	N/A					
Notes:	N/A					
Data Delivery	Data/Report to Designated Recipients (Nominal/Contingency):					
		Reports will be delivered to the crew surgeon within 24 hours of testing.				

3.7 Summary Schedule

TABLE 3.7: SUMMARY SCHEDULE

ACTIVITY	DURATION	SCHEDULE	FLEXIBILITY	BLOOD VOLUME	PERSONNEL REQUIRED	CONSTRAINTS
Preflight Training – N/A						
Preflight						
Resting ECG	15 minutes	AME L-9/6 m to L-10 d & as clinically indicated	N/A	N/A	Technician, crew member	No caffeine or alcohol for 12 hours prior to testing.
In-Flight – N/A						
Wheels-Stop – N/A						
Postflight						
Resting ECG	15 minutes	R+0/3 days & as clinically indicated	N/A	N/A	Technician, crew member	No caffeine or alcohol for 12 hours prior to testing.
Postflight Debrief – N/A						