ATTACHMENT J-3 SPECIALIZED PHYSICIAN SUPPORT FOR HUMAN SPACECRAFT LAUNCHES AND LANDINGS

FOR

MEDICAL AND ENVIRONMENTAL SUPPORT CONTRACT (MESC)

PWS Section 2.5 Attachment

SPECIALIZED PHYSICIAN SUPPORT FOR HUMAN SPACECRAFT LAUNCHES AND LANDINGS

1.0 Background

The Space Shuttle involves hazardous activities during launch and landing periods. Unique hazards may occur at NASA-Kennedy Space Center (KSC), Florida (FL) during the periods of launch and landing and medical teams must be available to provide definitive medical care to patients on-site and to those who may have to be transported from NASA-KSC to a hospital for treatment. Persons involved with or spectators to this activity are at risk of injury during emergency situations.

The best possible medical care at NASA-KSC must be assured in any emergency, including those, which might result in severe injuries or mass casualties. This medical care may include on-site emergency treatment and transportation to an appropriate hospital. This care requires trained and experienced medical teams of physicians, who must be available during periods of launch and landing, who have knowledge of the environment at NASA-KSC and its unique hazards.

NASA-KSC provides an On-site Orientation and Training Course for physicians to gain knowledge of the environment at NASA-KSC. NASA-KSC requires a pool of Contractor medical physicians to augment existing on-site NASA-KSC physicians and medical resources.

2.0 Launch and Landing Medical Support

The Contractor shall provide for every supported NASA-KSC medical operation, a group of four medical physicians that will make up a medical team that shall provide medical support onsite at NASA-KSC as required per the PWS during scheduled Space Shuttle Operations (launches and landings, and attempts) and other contingencies or simulations. During launch operations, this group of Contractor's physicians may also be tasked to provide medical care to spectators and non-astronauts as required.

The Contractor's physicians shall be experienced in Emergency Medicine, General Surgery, Critical Care, or Anesthesiology. All Contractor's physicians shall be employed and under the supervision and control of the Contractor. All Contractor's physicians are to be fully licensed and credentialed in the State of Florida and with the Contractor to practice medicine.

All Contractor physicians shall have current American Heart Association Advanced Cardiac Life Support (ACLS) certifications. At least two of the physicians in the group must be trained in Emergency Medicine or General Surgery. The physicians that are Emergency Medicine Physicians must have American College of Surgeons Advanced Trauma Life Support (ATLS) certifications. The physicians that are General Surgeons must have ATLS certification or training equivalent to ATLS certification training. The contractor shall maintain a pool of at least 30 qualified physicians from which the contractor will draw physician personnel to support this contract. 50% of this pool shall consist of Emergency Medicine and Surgeons.

The Contractor shall provide medical support at NASA-KSC using accepted regional practices for field emergency medicine and trauma care, which meet the ACLS and the ATLS protocols in a field hospital setting (Triage Site) that does not have definitive surgery and noninvasive imaging other than portable sonography, to medically treat 7 Astronauts who may have an illness or injury condition(s) resulting from an emergency of the Space Shuttle or other spacecraft.

The conditions mentioned above may be related to exposure to fire, blast/explosion, deceleration/ impact, toxic chemicals such as coolants, hypergolic fuels and oxidizers, and hydraulic fluids, atmospheric decompression, radiation, and hyper- or hypothermia. The Astronauts may also have undergone physiologic changes related to a normal space flight which may include hypovolemia, neurovestibular changes, cardiovascular deconditioning, muscular atrophy, bone demineralization, anemia, decreased immunity, and psychological stress.

The Contractor shall provide all medications, supplies and equipment as required in Appendix A, List of Government's Minimum Requirements for Contractor provided Medications, Supplies, and Equipment (excluding the items provided by the Government as listed in Appendix B, List of Government Provided Medications, Supplies, and Equipment) to provide medical support at NASA-KSC for the following cases: 4 ACLS Code patients, 4 Rapid Sequence Induction patients, 4 Seizure patients, 4 Head Injury patients, 4 Spinal Shock patients and 4 Toxic Exposure patients.

Duration of Medical Support

During launch operations at NASA-KSC, the Contractor's physicians shall be present on duty at least 4.5 hours prior to a launch until successful orbit is achieved approximately 8 minutes after launch. However, if NASA-KSC is designated an AOA (Abort Once Around) Site, then the Contractor's physicians shall be present for approximately 1 hour after launch. If a launch is canceled, the physicians shall be required to be present until the Orbiter (Shuttle) crew has exited the Orbiter and returned to the Operations and Checkout (O&C) Building on-site at NASA-KSC.

During landing operations at NASA-KSC, the Contractor's physicians shall be present on duty at least 1.5 hours prior to scheduled landings until the Orbiter crew arrives at the O&C Building (approximately 1.5 hours after landing) or until the landing has been rescheduled. The Contractor shall also be able to provide physician support on a best effort basis for unscheduled Shuttle landings.

Under either circumstance, if a substantial viewing crowd is present, the Contractor's physicians shall remain at NASA-KSC until the crowd has dispersed and the physicians are released by the Government. Also, under either circumstance, if there is a Shuttle emergency, the Contractor's physicians shall remain at NASA-KSC until their support is no longer needed and they are released by the Government.

When circumstances allow after a landing, a Post-Landing Training Exercise (PLaTE) may be held. A PLaTE may be scheduled to occur at NASA-KSC after every landing but is typically performed approximately three times a year. The Contractor's physicians shall support every PLaTE that is held. A PLaTE usually does not last more than one hour.

The actual duration of total coverage will vary, but normally will not exceed 8 hours.

Scheduling Medical Support

The NASA Technical Representative will contact (after the award of a Delivery Order) the Contractor to schedule when medical support shall be required at NASA-KSC. The NASA Technical Representative will notify the Contractor at least 7 days in advance of the days when medical support may be required, and will inform the Contractor at least 7.5 hours in advance of the days when medical support is actually required or has been changed. Scheduling of medical support for emergency situations will be handled on a case-by-case basis.

Transportation for Patient Care to a Hospital

The Government will provide all transportation for patient care at NASA-KSC. The Government will also provide all medications, supplies, and equipment required for medical care for a patient who is in-transit to the hospital. The Contractor's physicians may be required to provide medical care to a patient who is in-transit to the hospital. When it is determined that a patient must be transferred from NASA-KSC to a hospital, the Government will arrange for patient transportation either by helicopter, ambulance or other vehicle.

Medical Consultation

Provide consultation services in Emergency Medicine and Trauma Medicine with regard to the use of the latest and most appropriate medications, supplies and equipment for use in Government support of spacecraft launches, landings and contingencies, and mass casualty support.

3.0 <u>Medications, Supplies, and Equipment</u>

Government provided Medications, Supplies, and Equipment

The Government will provide the Contractor's physicians with all medications, supplies, and equipment listed in Appendix B. The medications, supplies, and equipment listed in

Appendix B will be pre-loaded by the Government and contained in a Triage Van. The Triage Van will be brought to the Triage site at NASA-KSC by the Government. After each use of the van, the Government shall restock all medications, supplies, and equipment that were used to provide medical support. In this way, prior to each use, the van will contain all items listed in Appendix B.

Contractor provided Medications, Supplies, and Equipment

The Contractor shall provide, for every supported NASA-KSC medical operation, all medications, supplies, and equipment (excluding those provided by the Government as listed in Appendix B) required to provide medical support as required per this Statement of Work and based upon the conditions and case assumptions stated in 2.0 Launch and Landing Medical Support in this Article.

Appendix A is a list of all medications, supplies, and equipment that the Government requires the Contractor to provide as a MINIMUM. The Contractor's physicians assigned to provide medical support at NASA-KSC shall be trained and certified in the use of all medications, supplies, and equipment that they propose to use.

4.0 <u>On-Site Simulations & Annual Orientation and Training Course</u>

On-Site Simulations

NASA-KSC will conduct On-Site Simulations of Shuttle contingencies/emergencies at NASA-KSC, that the Contractor's physicians are required to participate in, approximately two times a year. The NASA Technical Representative will contact the Contractor and will give approximately seven days notice of the Government's requirement for the Contractor's physicians to attend the On-Site Simulations. The On-Site Simulations last between 3 to 5 hours. These On-Site Simulations are not associated with any launches or landings and are for testing and training purposes only. The Contractor shall provide a four physician medical team, as described in this Statement of Work.

Annual Orientation and Training Course

The Government will annually conduct an Orientation and Training Course (includes Orientation/Badging briefing) at NASA-KSC for all Contractor physicians to provide them with knowledge of the environment at NASA-KSC. The Annual Orientation and Training Course is usually held for one day and lasts between 8.5 to 9.5 hours. The NASA Technical Representative will contact the Contractor and will give approximately one week notice of the Government's requirement for the Contractor's physicians to attend the course. The Orientation and Training Course is provided so that the Contractor can provide physicians that are qualified to provide medical support as required per this Statement of Work. This course will typically accommodate up to 50 physicians.

The Orientation and Training Course will be offered to the Contractor at least two weeks prior to the Government's requirement for medical support. However, the Contractor shall

contact the NASA Technical Representative to inquire about scheduling an Orientation and Training Course if the Contractor discovers that they do not have a sufficient number of physicians in their pool to provide medical support who have attended the Orientation and Training Course. The Contractor shall ensure, prior to scheduling medical support at NASA-KSC that each of the four physicians in the team have received and completed the Orientation and Training Course within the last four years.

The Government will keep the Contractor's physicians informed of relevant hazardous activities. The Government will notify the Contractor of any changes in facilities and equipment which might affect the Contractor's duties at NASA-KSC.

KSC Access Badging and Orientation/Badging Briefing

In order to obtain KSC access prior to providing medical support for every supported NASA-KSC medical operation, the Contractor shall submit the following information to the NASA-KSC Aerospace Medicine and Occupational Health Branch (AMOHB): list of the physician's names, current address, social security number, date of birth, country of citizenship, medical specialties of the physicians, and if the physicians have ACLS and/or ATLS certification and/or equivalent training. Due to the long duration, complexity, and other conditions in obtaining KSC Access for non-U.S. citizens, it is not practical form NASA to obtain KSC Access badging for non-U.S. citizens or non-permanent resident alien medical support contractors. Therefore the Contractor must provide only physician personnel who are U.S. citizens or permanent resident aliens.

The Contractor shall ensure, prior to scheduling the physicians for their first assignment, that the physicians have completed NASA-KSC's Orientation/Badging Briefing. The Contractor shall also ensure that the physicians, prior to their assignments, have obtained the required NASA-KSC provided identification badges. The Orientation/Badging Briefing is provided by NASA-KSC Security and is held within the Annual Orientation and Training Course. The Contractor's physicians shall follow all NASA-KSC security rules, regulations, and conditions.

5.0 Transportation

The Contractor's physicians are required to travel to NASA-KSC, FL to perform under the contract. The Contractor shall provide transportation for their physicians to and from NASA-KSC.

LIST OF APPENDICES

Appendix AList of Government's Minimum Requirements for
Contractor Provided Medications, Supplies, and EquipmentAppendix BList of Government Provided Medications, Supplies, and Equipment

APPENDIX A

LIST OF GOVERNMENT'S MINIMUM REQUIREMENTS FOR CONTRACTOR PROVIDED MEDICATIONS, SUPPLIES, AND EQUIPMENT

PLEASE NOTE: The Contractor may provide the Government with generic or equal medications, supplies, and equipment except where it is indicated "or an approved equal". In these cases, the Contractor shall obtain approval of the NASA, KSC AMOHB. The medications, supplies, and equipment that state "an approved equal are designated with an asterisk (*).

AIRWAY/RAPID SEQUENCE INDUCTION (RSI) DRUG KIT (4 RSI KITS TOTAL)

MEDICATION	PURPOSE	DOSAGE	HOW SUPPLIED	STORAGE REGS	MINIMUM QTY REQUIRED
Lidocaine	"Anesthetic" Head Injury	1.5 –2.0 mg/kg IV	100 mg Bristoject	None	2 - 100 mg Bristojects per Triage RSI kit (200mg)
Pancuronium or Vecuronium	Defasiculate/ RSI Muscle Relaxant	0.1 mg/kg IV (load) 0.01 mg/kg IV (maint)	10 mg vial	Refrigeration (lasts 18 months) or none (lasts 6 months) None (Vecuronium)	2 – 10 mg vials per Triage RSI kit
Etomidate	Induction Agent RSI	0.25 - 0.5 mg/kg IV	40 mg/20 ml Bristoject (2 mg/ml)	None	2 - 40 mg Bristojects per Triage RSI kit (80 mg)
Succinylcholine	Muscle Relaxant/RSI	1 - 2 mg/kg IV	200 mg vial (20 mg/ml)	Refrigeration	1 - 200 mg vial per Triage RSI kit
Rocuronium	Muscle Relaxant	0.6 mg/kg IV (load) 0.1-0.2 mg/kg IV (maint)	50 or 100 mg vials	Refrigeration	2 - 50 mg vials or 1 - 100 mg vial per Triage RSI kit
Midazolam or	Sedative	0.02 -0.04 mg/kg (sedation) 0.07 - 0.3 mg/kg (induction)	50 mg/10 ml vial	None	1 - 50 mg vial per Triage RSI kit
Lorazepam		0.044 mg/kg IV up to 4 mg max	4 mg/ 1 ml tubex	Refrigeration	1 – 4 mg Tubex per Triage RSI kit

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MEDICATIONS (4 MEDICATION KITS TOTAL)

MEDICATION	PURPOSE	DOSAGE	HOW SUPPLIED	STORAGE REGS	MINIMUM QUANTITY REQUIRED
Amyl Nitrate Cyanide tox kit (Lilly Kit)	Cyanide Toxicity	1 pearl	pearls	None	1 - pearl per Medication kit
Ipratropium and Albuterol Inhaler (Combivent)	Bronchospasm	2 inhalations q 6hrs prn up to 12 inhalations in 24 hrs	14.7 g canister MDI and chamber	Avoid temps above 120 F, do not puncture	1 – 14.7 mg canister MDI and chamber
Methyl prednisolone	Prophylaxis for Pulmonary Edema or Spinal Shock	30 mg/kg IV over 15 min q 6 hrs for Pulm Edema or 30 mg/kg initial, then 5.4 mg/kg IV q hr for next 23 hrs for Spinal Shock	1 gm in 8 ml vial	None	3 - 1 gm vials per Medication kit
Aspirin tabs	MI	325 mg tab	325 mg tab	None	14 tabs per Medication kit
Benadryl	Anaphylaxis	25-50 mg IVP	50 mg/ml in 10 ml vial	None	1 - 10 ml vials per Medication kit
Epinephrine 1:1,000	Cardiac Resusc	ACLS – 1 mg IVP q 3 – 5 min or higher dose (0.2 mg/kg) may be used, if initial 1 mg doses are not effective	1 mg/ml in 30 ml vial	None	2 - 30 ml vials per Medication kit
	Bronchospasm	0.3 ml SQ			
Vasopressin	Cardiac Resusc	ACLS – 40 Units IVP once	40 unit vial	None	1 - 40 unit vial per Medication kit
Atropine	Cardiac Resusc	ACLS - 0.5 - 1.0 mg IVP q 3 - 5 min (max 0.03 - 0.04 mg/kg total)	1 mg/10 ml Bristoject	None	4 – 1 mg Bristojects per Medication kit (4 mg)
Lidocaine	Cardiac Resusc	ACLS – 1 - 1.5 mg/kg IVP q 3 - 5 min (max 3mg/kg total)	100 mg/5ml Bristoject	None	3 -100 mg Bristojects per Medication kit (300mg)
Lidocaine Infusion	Cardiac Resusc	ACLS 2 - 4 mg/min IV drip	2 gm/500 cc IV bag (4 mg/ml)	None	1 - premixed bag per Medication kit

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h		LANDINGS - ATTA	CINVILIOI J-J	+	+
Amiodarone	Cardiac Resusc	ACLS 300 mg IVP	150 mg/3 ml vial	None	2 - 150 mg vials per Medication kit
Sodium Bicarbonate	Cardiac Resusc	ACLS - 1 mEq/kg IV	50 mEq/50 ml Bristoject	None	2 - 50 mEq Bristojects per Medication kit (100 mEq)
Magnesium Sulfate	Cardiac Resusc	ACLS 1 - 2 gm IV slow (drip)	5 gm/10 ml Bristoject	None	1 - 5 gm Bristoject per Medication kit
Furosemide	Cardiac/ Pulm Edema	ACLS 0.5 - 1 mg/kg IVP, up to 2 mg/kg if no response	100 mg/10ml vial	None	3 - 100 mg vials per Medication kit (300mg)
Nitroglycerin Lingual/S.L Spray or 	Cardiac	1 spray (0.4 mg) S.L. q 5 min prn 1 tab S.L. q 5 min	200 metered sprays bottle	None	1 - 200 metered sprays bottle per Medication kit
Nitroglycerin S.L. tabs		prn	1/150 gr tabs, 100 per bottle		1 bottle per Medication kit
Nitroglycerin IV	Cardiac Pain	10 - 20 ug/min IV drip, titrate to relieve pain	50 mg/10 ml vial	None	1 - 50 mg vial per Medication kit
Adenosine	ACLS - Cardiac	6 mg IVP, repeat 12 mg IVP x 2	6 mg/2 ml vial	None	3 - 6mg vials per kit (18 mg) per Medication kit
Diltiazem	ACLS - Cardiac	15 – 20 mg IV over 2 min, may repeat in 15 min at 20-25 mg over 2 min	50 mg/10 ml vial	Refrigeration	1 - 50 mg vial per Medication kit
Dopamine	Cardiac Resusc/ Pressor	2 - 10 mcg/kg/min IV drip	200 mg/ 250 ml NS premixed bag	None	1 - 200mg/250 ml pre- mixed bag per Medication kit
Calcium Chloride	Cardiac Resusc/ Hypocalcemia/ Hypokalemia	500 mg-1g slow IV push	1 gm/10 ml Bristoject	None	1 - 1g Bristoject per Medication kit
Isoproterenol	Cardiac Resusc	1 mg/250 ml NS IV at 2 - 20 ug/min	1 mg vial	None	1 - 1 mg vial per Medication kit
Metoprolol	Cardiac Resusc	5 mg IV q 5 min up to 15 mg max	5 mg/ 5 ml ampule	None	3-5 mg/ 5 ml ampules per Medication kit (15 mg)
Procainamide	Cardiac Resusc	1g/250 ml NS IV at 20 - 30 mg/min up to 17 mg/kg	1g/10 ml vial	None	2 – 1 gm vial per Medication kit

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		max			
Mannitol	Head Injury	1.5 - 2.0 gm/kg over 30 min	100 gm/500 ml bag	None	2 - 500 ml bags per Medication kit
Morphine	Gen. Analgesic Chest pain	2 - 4 mg IV, IM q 2 - 4 hrs prn, 2 - 4 mg IV q 5 to 30 min prn	1, 2 ,5, 10 mg Tubexes in 0.5 mg/ml or 1 mg/ml	None	2 – 2 mg/2 ml, 2 - 10 mg/10 ml per Medication kit
Promethazine	Antiemetic	12.5 - 25 mg IM 25 - 50mg IV q 4 - 6 hrs	25 mg vial	None	2 – 25 mg vials per kit
Ondansetron	Antiemetic	4 mg IV over 2-5 min or 4 mg IM	4 mg/2 ml vial	None	1 – 4 mg vial per Medication kit
Pyridoxine (Vitamin B6)	Hydrazine Exposure/ Seizure	25 mg/kg IV or IM over 15-30 min	1 gm/10 ml vial	None	3 - 1 gm vials per Medication kit
Lorazepam	Seizure	4 mg IVP over 2 min, repeat in 10 – 15 min if seizure continue or recur	4 mg/1ml Tubex	Refrigeration	2 – 4 mg Tubexes per Medication kit
Fosphenytoin	Seizure	15 – 20 mg/kg IVP over 10 min or 20 mg/kg IM may repeat up to 25 - 30 mg/kg max	500 mg/10 ml vial	Refrigeration	6 – 500 mg vials per Medication kit
Thiopental or	Sedative, Intractable	3 – 5 mg/kg IV	500 mg syringe	None	500 mg per Medication kit
Phenobarbital	Scizures	20 mg/kg IV at 100 mg /min up to 300 - 400 mg per dose	130 mg tubex	None	 3 – 130 mg tubexes per Medication kit
Naloxone	Altered Mental Status/Opiate Overdose	0.4 – 2 mg IVP repeat q 2 min prn to 10 mg max	4 mg/ 10ml vial	None	3 - 4 mg vials per Medication kit
Dextrose gel	Altered Mental Status/ Hypoglycemia	1 tube, p.o.	1 tube	None	1 tube per Medication kit
Dextrose (D50)	Altered Mental Status/Seizure	25 gm/ 50 ml IVP	25 gm Bristoject	None	1 - 25 gm Bristoject per Medication kit
Normal Saline	IV fluid	NA	250 mL bag	None	2 - 250 mL bags per Medication kit

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D5/W	IV fluid	NA	250 mL bag	None	2 - 250 mL bags per
					Medication kit
		1		1	

EQUIPMENT

EQUIPMENT	TOTAL MINIMUM QUANTITY REQUIRED		
Endotracheal Tubes, sizes 6.0 mm, 6.5 mm	4 tubes of each size		
Laryngeal mask airways, sizes 3, 4, and 5	4 airways of each size		
Combitube or "an approved equal"*	4 tubes		
Melker Cricothyrotomy Kit or "an approved equal"*	4 kits		
Transtracheal Jet Insufflation Kit	4 kits		
(as per ATLS "Jet Insufflation of the Airway")			
Syringes, sizes 6 ml, 3 ml, 1 ml	20 syringes of each size		
Needles, 27 gauge	20 needles		
Portable Sonogram, such as the Sonosite 180 or "an approved equal"*	1 sonogram		
Thoracotomy Kit with Rib Spreader	1 kit		
Portable Pulsoximeters, such as the Nonin 9500 or "an approved equal"*	7 pulsoximeters		
Suture Packs, size 4.0 with needle, 2.0 silk with needle, 0.0 silk, with needle	7 suture packs of each size		
Wound Stapler, disposable	7 staplers		
Large Curved Kelly Clamps	4 clamps		
Heimlich Valves or "an approved equal"*	8 valves		
Scalpel, disposable, size #11	4 scalpels		
Sterile Mosquito Clamps	7 clamps		
Sterile Needle Holders	7 needle holders		
Sterile Thumb Forceps	7 thumb forceps		
Chest Tubes, sizes 36 Fr	8 tubes		
Central Venous Introducer Kit, 9 Fr	7 introducer kits		
Pericardiocentesis Catheter Over Needle, 18 ga	4 catheters		
Instrument Side Tray or Board or "an approved equal"*	4 trays or boards		

APPENDIX B

LIST OF GOVERNMENT PROVIDED MEDICATIONS, SUPPLIES, AND EQUIPMENT

The Government will provide the Contractor's physicians with all medications, supplies, and equipment

listed below when the Contractor provides medical support at NASA, Kennedy Space Center, Florida.

These medications, supplies, and equipment will be pre-loaded by the Government and contained in a

Triage Van. The Triage Van will be brought to the Triage site at NASA/KSC by the Government. After

each use of the van, the Government shall restock all medications, supplies, and equipment that was used

to provide medical support. In this way, prior to each use, the van will contain all items listed in Appendix B.

Ambu bags with masks (7 bags with 7 masks) Resuscitators, Robert-Shaw with 1, 2000 cc oxygen cylinder (7 resuscitators) Autovent 2000 (3 Autovents) Suction units, portable (7 suction units) Pulsoximeter, portable (1 pulsoximeter) Nasal Cannula (7 cannula) Oxygen Masks, Adult size (7 masks) IV solution, Ringers Lactate bag, 1,000cc (12 bags) Vented Microdrip primary piggyback IV tubing sets (25 sets) Syringes, 30 cc (4 syringes) Syringes, 10 cc (7 syringes) Eye patches, 60 per box (1 box) Eye Shields, 24 per box (2 boxes) Field Dressings, First Aid, 11 ³/₄ squares (6 squares) Gauze, 2"x 2", 100 per box (4 boxes) Gauze, 4"x 4", compress (11 gauzes) Gauze, rollstretch, 4.5" x 147" (15 rolls) Gauze sponges, 4"x 4", 50 per box (4 boxes) Dressing, non adhering, 3"x 8" (24 dressings) Dressings, Oil Emulsion, 3"x 8" squares (1 square) Foley Catheter kits (2 kits) Povidine Iodine squares, 100 per box (2 boxes) Alcohol prep large squares, 100 per box (1 box) Cotton-tipped applicators (30 applicators) Ammonia Inhalant Solution Ampuls, 10 per box (6 boxes) Laerdal Pocket Masks (2 masks) Adhesive Tape, 2", 3", 4" rolls (2 rolls) Adhesive Tape, cloth, ¹/₂" roll (24 rolls) Ace Wrap, 2" rolls (22 rolls) Ace Wrap, 3" rolls (10 rolls) Elastic Cotton Bandage rolls, 6" (12 rolls) Nitrile gloves, small, medium, large, and x-large, 100 per box (1 box of each size) Litters, pole (7 litters)

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K.E.D. (6) I. V. Poles (11) Cup, Paper (4) Petrolaum 3" x 8" (2 boxes) Patch, Lifepak 10 (1) Earplugs, Disposable (13) Gel, Electrolyte (3) Pin, Safety (2) Paper, Lifepak 10 (1) Straps (6) Spine board, long with straps (7 boards) Splints, hard wooden (24 splints) Splints, ladder (6 splints) Splints, Hare traction (13 splints) Dynamed rolling stretchers (4 stretchers) Antishock Trousers (7 trousers) Lifepak 10 monitor/defibrillator units (6 units) Nasogastric/orogastric tubes, size 18 Fr. (7 tubes) Airways, size 4 (3 airways) and size 5 (23 airways) Tongue Depressor sticks (42 sticks) Seizure oral sticks (2 sticks) Band-Aids, extra large, 50 per box (4 boxes) Aluminum Blankets, 12 per box (1 box) Burn sheets, sterile (16 sheets) Decontamination Outfits - coat with hood, pants, boots, gloves, mask (4 outfits) Gloves, sterile surgical, sizes 7, 7½, 8 (6 pair of each size) Irrigation fluid, normal saline, 1000cc bottles (12 bottles)-TV Surgical gowns (4 gowns) Raincoats (6 raincoats) Batteries, 12 per box size C, 12 per box size D (1 box of each) Drinking Water (5 gallons) Gatorade (12 quarts) Cold Packs, 12 per box (2 boxes) Towels (10 Towels) Bed Sheets (3 sheets) Flashlights (7 flashlights) Goggles (10 goggles) Headlamps (7 lamps) Radios, Motorola MX350 portable 2, and MX90 non-portable, 1, with radio nets 105 and 117 (3 radios total) Scissors, trauma (1 scissors) Sunglasses (3 glasses) Triage tags (50 tags) Florescent luminaries, cyalume sticks (24 sticks) Medical Waste Bags (12 bags) Masks, surgical, 50 per box (1 box) Body Bags (10 bags) Medical Record, blank, standard form 600 (50 pages) Clipboards (8 clipboards) Steno pads (4) Zip-lock bags (12) Pencils (12) Sandbags (14) Reflective Vests (21) Military Stands (14)

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Multi-Trauma I Kit

Scissor, trauma (1 scissor) Regular size Band-Aids (24 Band-Aids) Sterile 4"X 4" gauzes (12 gauzes) Burn Sheets (2 sheets) Vaseline Gauze (1 gauze) Oil Emulsion Dressing 3"X 3", 3"X 8" (2 dressings each) Sterile Eye Pads (10 pads) Extra Large size Band-Aids (16 Band-Aids) Sterile 2"X 2" Gauzes (21 gauzes) Dressing, First-Aid, Field, 11³/₄" Square (2 dressings) Dressing, First-Aid, Field, 7¹/₂" X 8" (3 dressings) Plastic Eye Patches (6 patches) Nitrile Gloves - Medium, Large & X-Large (2 pair of each size) Oto/Opthalmic Scope (1 scope) Sterile Eye Wash, 4 oz. Bottles (2 bottles) Anti-microbial hand wipes (12) Adaptic (3)

Multi-Trauma II Kit

Ace Wrap 6" (4 wraps) Ace Wrap 4" (4 wraps) Ace Wrap 3" (2 wraps) Ace Wrap 2" (2 wraps) Lap Sponges 18" X 18" (2 sponges) Cold Packs (4 packs) Blankets, Combat, Casualty (2 blankets) Nitrile Gloves, Medium & Large (2 pair of each size) Kerlex Wrap 3" & 4" (2 wraps each) Anti-microbial hand wipes (12)

Intravenous Kit

Cut-Down Kits: 4.0 chromic gut suture with needle. 4.0 silk suture with needle 21 ga catheter, 25 ga needle, #10 blade scalpel (2 kits) Tape, 1" Roll Clear Plastic (2 rolls) Tape, 1/2" Cloth Roll (1 roll) Angiocath Needles, 14ga, 16ga, 18ga, 20ga (2 of each size) Cut-Down Catheters, 14ga 8" (2 cut-down catheters) Regular size Band-Aids (8 Band-Aids) Penrose Drains (2 drains) Syringe, 10cc, (2 syringes) Needles, 18ga, 20ga - 1 1/2" (2 each) Needles, 21ga, 1¹/₄" (2 each) Needles, 23ga, 1" (2 each) Needles, 25ga, 5/8" (2 each) Lidocaine 1%, 2%, 30cc Vials (1 vial of each) Povidine-Iodine Swabs (15 swabs)Alcohol Prep Squares (12 squares) Kerlex 4¹/₂" Wrap (2 wraps) Selec-3 I.V. Set (2 sets) Single Lumen Catheter Tray (1 tray) Intraosseous Access Needle Set (1 set) Nitrile Gloves, Medium and Large (2 pair of each)

MESC NNK07204121R SECTION J DRAFT RFP SPECIALIZED PHYSICIAN SUPPORT FOR HUMAN SPACECRAFT LAUNCHES AND LANDINGS - ATTACHMENT J-3 9" I.V. Armboards (2 armboards)

Veni-Guard Membranes (6 membranes) Sharps Shuttle Container (1 container) Anti-microbial hand wipes (12)

<u>Airway Kit</u>

Cricothyrotomy Kit (2 kits) Quick Trachs kit (1) Nasal Cannual (2 cannulas) Non-Rebreathing O2 Masks (2 masks) O2 Masks (2 masks) Laryngoscope Handle (1 handle) Laryngoscope Blades, Straight & Curved (1 of each) Ammonia Inhalants, 10 per box (1 box) Stethoscope (1 stethoscope) Sphygmomanometer (1 sphygmomanometer) Adult, Child, & Pediatric Pharyngeal Airways, sizes 5.5 mm, 6.0 mm, 7.0 mm, 8.0 mm, 10.0 mm, 12.0 mm (1 of each) End-Tidal CO2 Detectors (2 detectors) Endotracheal Tubes, sizes 7 mm, 7.5 mm, 8 mm, 8.5 mm, 9 mm, 9.5 mm, 10 mm (1 tube of each size) Syringe, 30cc (1 syringe) Endotracheal Tube Stylet (1 stylet) Tape, ¹/₂" Roll (1 roll) Surgical Lube Foil Packs (3 packs) Levin Tubes, 16 fr. (2 tubes) Nitrile Gloves, Medium and Large (2 pair of each size) Syringe, 60 cc with Catheter Tip (1 syringe with catheter tip) Macgill Forcep (1 forcep) E.T. holder (1) Anti-microbial hand wipes (12)

Bottom Center Compartment of Rescue Bag I.V. Pressure Infuser Cuffs (2 cuffs) Triage Tags (2 tags) Pen (1 pen) Penlights (2 penlights)

I.V. Packs (3 packs) which each contain the following contents:
I.V. Solution, Lactated Ringers Bag, 1000cc (1 bag)
Selec-3 Tubing Set (1 set)
Angiocatheters 14ga, 16ga, 18ga, 20ga (1 of each)
Alcohol & Povidine-Iodine Prep Squares (6 squares)
I. V. Start kit (1)
Tape 1" & 1/2" Rolls (1 roll of each)

I.V. Packs (3 packs) which each contain the following contents:
I.V. Solution, Normal Saline Bag, 1000cc (1 bag)
Selec-3 Tubing Set (1 set)
Angiocatheters 14ga, 16ga, 18ga, 20ga (1 of each)
Alcohol & Povidine-Iodine Prep Squares (6 squares)
I. V. Start kit (1)
Tape 1" & 1/2" Rolls (1 roll of each)

Side Compartment I of Rescue Bag

Suturing Tray Safety Glasses (1) Ear plugs (1)

Side Compartment II of Rescue Bag Blue Head Shock Blocks (1 pair of blocks) Sure Loc Extrication Collar (1 collar) Foley Insertion Tray (1 tray) Sam Splint (2 splints) 9" Cardboard Splint (2 splints) 18" Cardboard Splint (2 splints) 24" Cardboard Splint (2 splints) 18" I.V. Arm Board (2 boards)