MEDICAL SUPPORT FOR ISS CREWMEMBER TRAINING
IN STAR CITY, RUSSIA

Aerospace Medical Association Annual Meeting
Denver, Colorado
1 May 2017

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Disclosure Information

88th Annual Scientific Meeting

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- I have no financial relationships to disclose.

- I will not discuss off-label use and/or investigational use in my presentation.
MEDICAL SUPPORT FOR ISS CREWMEMBER TRAINING IN STAR CITY, RUSSIA

Outline

• Geography
• Rationale
• Training events requiring medical support
• Physician office capabilities
• Local medical facilities
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Geography
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- Star City = Russian equivalent of JSC
- ~27 miles from Moscow
- Moscow population: ~12 million
- Transport time 1-3hrs, traffic dependent
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Rationale/Role of Flight Surgeon at Gagarin Cosmonaut Training Center (GCTC)

- Provide medical care for illness/injury to astronauts (NASA, CSA, ESA, JAXA), family members/guests, civil servants, & contractors
- Medical advocate for astronauts
- Maintain and operate Star City medical office
- First U.S. physician responder for emergency Soyuz landings
Training Events Requiring Medical Support

- Altitude chamber, near-vacuum (Sokol suit)
- Centrifuge runs (up to 9Gs)
- Pressurized suited sims (Sokol, intermittent pressurization to 1.4 atm)
- Sokol fit check (2hrs continuous pressurization)
- Orlan suit stand runs
- Braslet fit check
- Seat liner molding
- Russian medical exams prior to hazardous training
- Winter Survival
- Water Survival
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• Altitude chamber
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- Centrifuge run
• Pressurized suited sim
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• Fire sim
• Sokol fit check
• Orlan stand run
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- Braslet fit check
• Seat liner molding
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Star City Physician Office Capabilities

- Urgent care needs
- Medical stabilization prior to transfer/evacuation
- Some ACLS/ATLS capabilities- not comprehensive
- Prepare field medical packs for Soyuz launch/landing
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• Medications
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• Equipment
Local Medical Facilities

- Star City Polyclinic, 5 min away
  - Ambulances available w/ O2, medics
- Mytischi Hospital, 30-50 min
- European Medical Center*, 1-3 hrs
Realities of a Potential Hazardous Training Mishap

- Russian and American FS will work together
  - Determine what medical capabilities are available and which facilities are needed
  - We support and attempt to implement our EMS plan as soon as possible/necessary
  - International SOS’ recommendations guide our options
Acknowledgements

- KBRwyle
- UTMB
- NASA-Russia Office
- Jose Flores
- Shane Kimbrough
- Mark Vande Hei
- Serena Aunon-Chancellor
- Rick Cole
- Norishige Kanai
- Takuya Onishi
- ...and all our Russian counterparts!