# Building a Research Team: Leadership Skills and Personnel Management

TOM TIMMERMAN
W.E. MAYBERRY CHAIR OF EXCELLENCE
DEPARTMENT OF DECISION SCIENCES AND MANAGEMENT

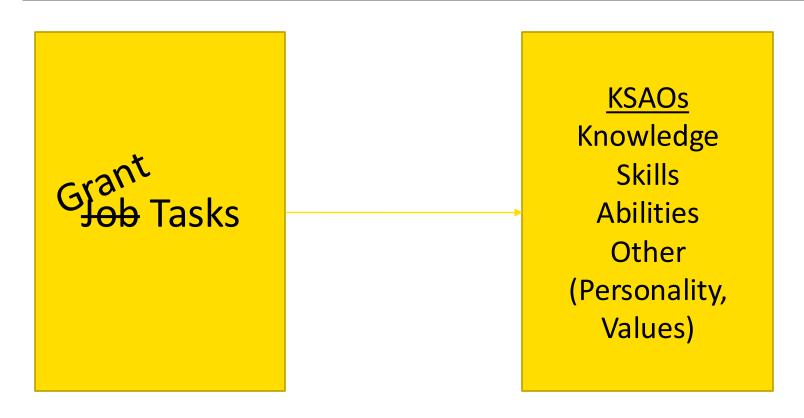
#### Agenda

- □ Why am I here?
- Team Composition
- Team Building
- Resources

#### Why am I here?

- Maybe this stuff actually matters:
  - Leadership
  - ☐ Team Dynamics
  - Collaboration
  - Communication
- Increasing requests for:
  - "Management Plan"
  - "Team Collaboration Plan"

**KSAOs** Knowledge Skills **Job Tasks Abilities** Other (Personality, Values)



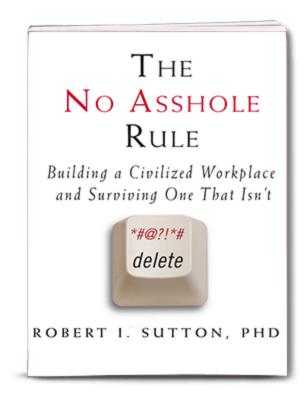
		Lunar Geology				Remote Sensing/Data			Mapping		Analog Fieldwork			Team					
Sarah A	Volcanism	Cratering	Regolith	Ice and CO2 20	Lunar Petrology	Topo Data				Geologi c	Tactical	Travers e		Sample	Tool	Code of Conduc t Dev.		Team Structur es	Leaders hip/Ma nageme nt
Sarah A.															20				
Cecilia A.				20	20									20					
Gourab B.	5	0	0	0	5	10	15	1	0	20	15	20	20	20	0	5	5	5	1
Kelsey C.	10	5	1	1	1	15	15	1	5	20	10	10	20	5	5	5	5	1	5
Jeannette L.	10	10	10	5	5	10	10	5	10	20	15	15	20	20	10	10	10	15	20
Marie H.	20	5	5	1	5	10	15	20	10	10	15	15	15	10	8	5	5	12	5
Alex Huff	15	10	5	5	5	15	15	15	5	20	10	10	20	10	10	5	5	5	5
Kelsey P.	15	5	5	1	20	10	5	15	5	10	1	1	10	20	1	5	10	10	10
Jacob R.	20	5	1	1	1	18	15	3	15	16	15	13	20	10	9	19	10	15	15
Jim S.	12	12	8	8	8	18	18	10	10	20	15	18	18	12	8	15	15	15	20
Brad T.	15	20	20	10	12	18	18	16	16	19	10	16	18	16	15	10	12	18	17
Tom T.																20	20	20	20

<b>Engineering Mgmt</b>	Creativity	<b>Group Processes</b>	Granting		

	<b>Engineering Mgmt</b>	Creativity	<b>Group Processes</b>	Granting
Person 1	1	0	0	10
Person 2	0	1	1	0
Person 3	0	5	8	0

#### "Other" (Personality/Values)

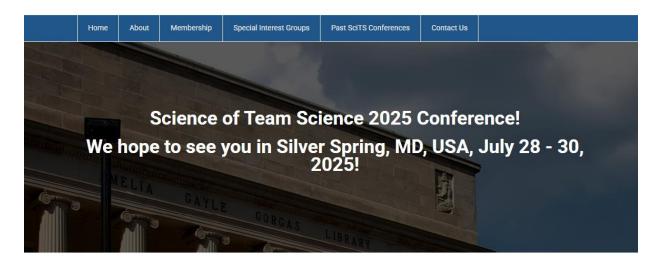
- Functional Diversity
- Conscientiousness
- Intelligence
- Values
- Finally...



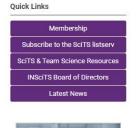
### Team Building











### Team Building

#### **TeamMAPPS**

Team Methods to Advance Processes and Performance in Science

**Science Team Competencies** 

- Psychological Safety
- Awareness and Exchange
- Self-Correction and Adaptation

### Promoting Psychological Safety

Def: shared belief that the team is safe for interpersonal risk taking Behavioral markers:

- Follow-up questions are asked when new ideas are shared
- •New ideas and opinions are acknowledged explicitly or with rephrasing the idea
- New ideas and perspectives are not criticized or laughed at
- •Errors and mistakes are openly discussed between team members without criticism
- •Teammates recognize each other's skills and ask for help when needed
- Interpersonal conflict is minimized during group interactions

### Facilitating Awareness & Exchange

Def: Becoming more aware of when the knowledge of your collaboration partners is different or similar from your own expertise and how your different knowledge can be applied to the team's joint work.

#### Behavioral markers:

- Ask open-ended questions to seek the insights of others.
- Voice original ideas drawing on their unique perspectives.
- •Try to get clarification when they don't understand one another.
- Build on the ideas and perspectives of others.
- Learn about who knows what.

#### Self-Correction and Adaptation

Def: The capability of team members to monitor and discuss team processes and outcomes reflect and analyze to diagnose causes of failure to meet team goals, and create change and development plans to take corrective action.

#### Behavioral markers:

- •Team members adjust tasking to accommodate each other's needs
- Teams discuss performance episodes upon completion
- •Incidents are documented, reviewed, and discussed by all team members
- •The team gives and receives feedback
- •Teams discuss strengths, weaknesses, goals, and planned changes are discussed as a team
- Changes in routine are approached with an open mind and completed as necessary

#### Resources

#### **TeamMAPPS**

• https://teammapps.utmb.edu/

International Network for the Science of Team Science

www.inscits.org