

Meeting Minutes 2/16/18

- **ATOMM:** is still a thing, everyday 1-2:30pm in Parker Library
- **TIMESTEP:** Next meeting, Feb. 21st in PAS 218. Topic covered will be Study Abroad and Scholarship Applications

- **Don's Question of the Week**

- Upcoming launches from Vandenberg AFB: Feb 27 Falcon 9 at 7:17 (MST)

Date	Launch Time/Window PST/PDT	Vehicle	Pad/Silo	Comments
FEB 17	06:17	Falcon 9	SLC-4E	Vehicle will launch Spain's Paz earth observation satellite. Backup launch date is FEB 18. Liftoff occurs 29 minutes before Vandenberg AFB sunrise. This could cause the exhaust plume to be illuminated by the sun when the vehicle reaches high altitude
FEB?	To be announced	Minuteman III	---	Vehicle will fly a ballistic trajectory. Delayed from FEB 6-7
MAR 18	08:19	Falcon 9	SLC-4E	Vehicle will launch Iridium Next commercial communications satellites 41-50. Liftoff occurs well after sunrise, but the rocket's bright orange flame could be visible for more than 100 miles.
APR 14	To be announced	Falcon 9	SLC-4E	Vehicle will launch Iridium NEXT satellites 51-55 and the GRACE Follow-On satellites
MAY 5	04:10	Atlas V	SLC-3E	Vehicle will launch the InSight spacecraft to Mars

- Winter Olympics: Physics of Snow and Ice. What factors are important to performance on snow and ice? For snow ski races, athletes want to reduce friction between their boards (skis) and the snow, they'll want to take into account wind resistance (drag). From **"How Olympians Slide and Glide on Ice Crystals"** Wall Street Journal Helen Czerski (February 10, 2018):
- An unconscious control of tiny crystals! Friction - Most skiing happens close to the melting point
 - Boundary layer of crystals ("asperites")
 - Melts with sideways friction
 - Ideal temperature for speed = 23 F
 - Close to the melting point but not so wet that the water is sticky
- Ice
 - Frozen water does not have a sharp crystal boundary above 40 F
 - Instead, a very thin liquid layer exists at the top
- Snow in the Solar System: Jupiter Moon Europa's possibly porous surface could doom a lander ->

<https://www.space.com/39495-jupiter-moon-europa-porous-surface.html>
- Sun Haloes - 22-degree Ice halo, incoming sunlight going through ice crystals
- Sun Dogs

- Here's a cool video sent to Don from Sammie! ->
<http://www.dailymail.co.uk/sciencetech/article-5144133/Skiers-capture-rare-sun-halo-mountains-Sweden.html>

- **Astro News of the Week:** Presented by Nicole Zawadzki. Hubble sees Neptune's mysterious shrinking storm ->
<http://www.astronomy.com/magazine/press-releases/2018/02/neptunes-mysterious-shrinking-storm>; Brightness changes of a car tumbling in space ->
<https://twitter.com/jotajotahermes/status/962545252446932993>
- Don't forget to sign up for Astro News of the Week! Talk about the cool space happenings!

- **Star Parties:** March 1st at Lynn-Urquides Elementary School from 5:30-7:30pm, and March 2nd at San Cayetano Elementary School from 6-7:30pm

- **Telescope Observing at Steward:** It's still a thing! Monday-Thursday, 7-10pm!

- **Artistic Display of Astronomy:** Next Friday! Catherine Inzirillo (UA Dance 2nd Year Graduate Student) will give a lecture on how she is using dance to depict basic astronomical topics! Get pumped!

- **San Diego Trip:** Will take place April 6-8th, max number of 21 people can go. We'll have a more in depth meeting after club next week (2/23) for those who are interested. You must have paid dues and volunteered at a star party in order to go!

- **Laser Fun Day!** Will take place on April 7th 10am-3pm. Volunteers get a free tshirt, pizza, and egees! AstroClub will be running the solar telescopes!

- **Radio Project:** Astro Club has some observing time at Kitt Peak March 3-4, let us know if you're around/interested!

- **Pay yo dues:** \$10 per semester.



Or should I say "due" it