



MKSOA Board Briefing

14 August 2025

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Part of a Longer Story...

- ✱ Slides shared here stem from a recent set of presentations around Hawai'i Island regarding the "Current State of Maunakea Astronomy"
 - ✱ Provides information on the background, history, research, finance, management, and potential future of Maunakea astronomy
 - ✱ Material presented today focuses mostly on some of the challenges associated with new MKO lease negotiations
- ✱ *Lease negotiations will be a complex multilateral, multinational process in a highly time compressed setting*



<https://www.youtube.com/watch?v=TdzgEi64src>

About 5 years ago during a Maunakea Management Board meeting...

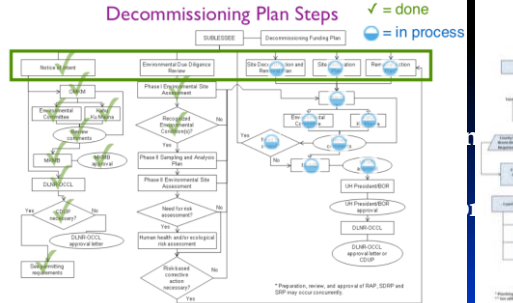
Domino Theory

Master Lease Timelines



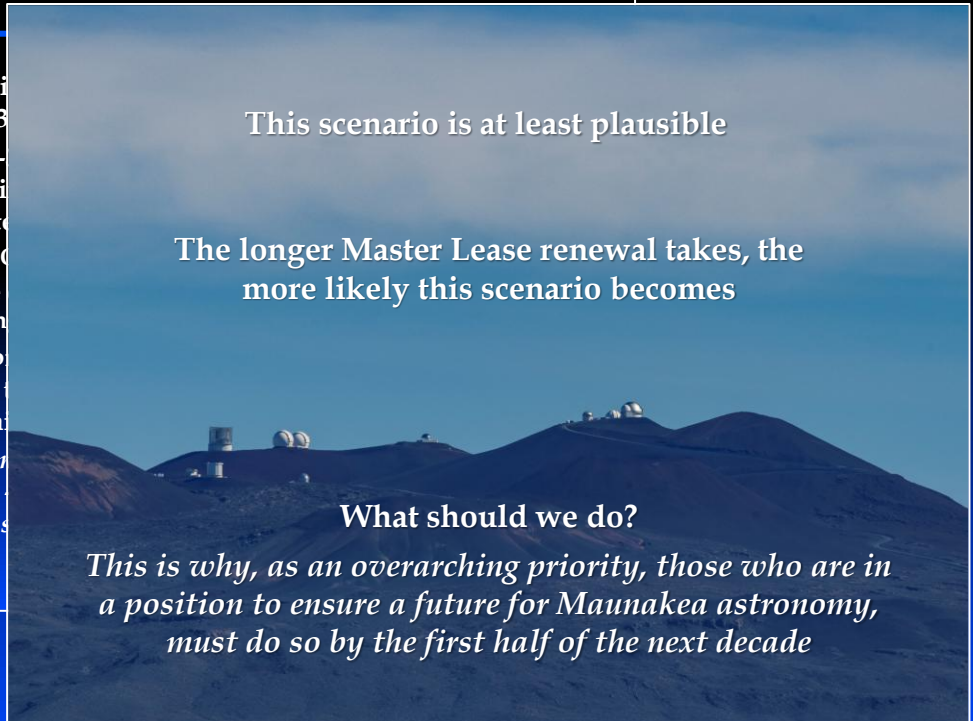
Case Study in MKO Decommissioning - CSO

- * CSO announced their intent their summit facilities in 201
- * Current best estimate for pro of 2021 (2022?)



Next ~5 Years are Crucial

- * Recall previous slip completed by 2023
- * If that slips by ~2- each must determine their Notice of Int
 - * Process took CSO
 - * CSO will be the decommissioning
- * As each MKO sub remaining MKOs increases for rema
- * Eventually a tipping "snow ball effect" fairly rapid success



This scenario is at least plausible

The longer Master Lease renewal takes, the more likely this scenario becomes

What should we do?

This is why, as an overarching priority, those who are in a position to ensure a future for Maunakea astronomy, must do so by the first half of the next decade

Some Assumptions and Boundary Conditions

- ✱ All MKOs are legally bound to complete facility decom and site restoration by 31 December 2033 if new land authorization is not completed
 - ✱ *This means the operational lifetimes of existing MKOs is ~4 years w/out new land authorization assuming ~5 years to decom, start-to-finish, including all site restoration*
 - ✱ Existing MKSR General Lease and associated subleases remain in effect until new leases are granted by MKSOA
 - ✱ 1 year revocable (sub)lease extensions, effective 2034, are a dubious way to sustain a billion dollar research complex
- ✱ The future of Hawai'i astronomy lies in the hands of our local community
 - ✱ Deep, lasting, and authentic community connections will help ensure a future for Hawai'i astronomy, for the benefit of everyone

Master Lease Renewal Efforts Over the Past Decade

Environmental Assessment/Environmental Impact Statement Preparation Notice (EISP/N)

NEW MASTER LEASES FOR MAUNA KEA SCIENCE RESERVE & RELATED FACILITIES & EASEMENTS



PROPOSING AGENCY:
UNIVERSITY OF HAWAII AT HILO

This Environmental Document was Prepared Pursuant to Chapter 343, Hawaii's Revised Statutes, and Chapter 200 of Title 11, Hawaii's Administrative Rules, Department of Health, Environmental Impact Statement Rules.

DECEMBER 2014

Environmental Impact Statement Preparation Notice (EISP/N)

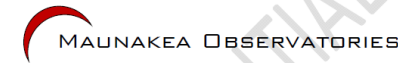
LAND AUTHORIZATIONS FOR LONG-TERM CONTINUATION OF ASTRONOMY ON MAUNAKEA



PROPOSING AGENCY:
UNIVERSITY OF HAWAII

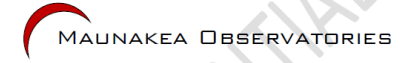
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FEBRUARY 2018



MKSR Land Authorization Considerations

2018



MKSR Land Authorization Considerations

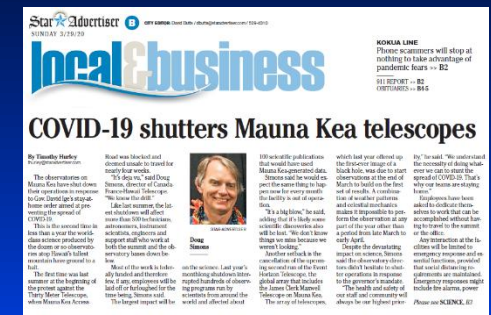
January 2021
(V2.0)



2015 - Ige announces 10 pt plan



2019 - TMT protests; COVID stalls process



Process Restarts in Early 2021

- ✳ Momentum was restarted in MKO discussions about potential new lease terms in early 2021
- ✳ In parallel, discussions within UH were occurring too
- ✳ In mid-2021 UH and MKOs launched joint discussions, starting with merging draft term sheets to identify what needed to be discussed and establish a process for discussions...

List of Major Terms for Land Authorization Agreements Between UH and MKOs

Term/Condition (UH, MKO)	Existing Agreements	New Agreements	Purpose	Rationale
		<i>modifies in event TMT is not</i>	<i>commercial</i>	<i>3. Keep money on Maunakea</i>

List of Major Terms for Land Authorization Agreements Between UH and MKOs

Term/Condition (UH, MKO)	Existing Agreements	New Agreements	Purpose	Rationale
		<i>needs for near- and long-term commitments towards a comprehensive community benefit program.</i>		
		<i>6. Long-term commitments nominally in 5 areas – education, environment, culture, workforce dev., community citizenship.</i>		
Decommissioning	Not currently addressed in subleases (except for TMT)	1. Reference compliance with Decommissioning Plan in Agreement. 2. Decommissioning Funding Plan clause. 3. Site Decommissioning Plan clause. 4. Payment of Decommissioning Costs clause. 5. <i>Should incorporate into new agreements protections to help ensure MKOs have stable, long-term commitments from State for their op's</i>	CMP was adopted after most agreements; this language will be included in new agreements for consistency.	Decommissioning is a major consideration of BLNR and the Supreme Court. These clauses are consistent with the TMT agreement which was consented to by BLNR and subsequently upheld.
Shared Services	General language in OSDAs supplemented by decades of practice	1. Update and expand language to align with current practice where it works and update where needed to address problem areas 2. <i>Non-UH MKOs do not intend to cover HP and VIS costs as currently allocated.</i> 3. <i>Need sustainable funding model for HP.</i> 4. <i>MKO's probably only need common area, 1 dorm, and</i>	Explicitly address pro rata share of support services costs by all observatories working on Maunakea, including maintenance of the summit access road, and operation and maintenance of the mid-level facilities at Halepōhaku	1. Follows existing HP cost sharing model 2. Consistent with UH BOR governance updates to align with CMS 3. <i>UH to cover additional costs and explore some alternate uses for HP. Additional, alternative funders for VIS are necessary.</i>

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Some Land Authorization Terms

- * Form of Agreement
 - * Access, termination, etc.
 - * Commitments and Fees
 - * Community Benefits
 - * Decommissioning
 - * Shared Services
 - * Summit-wide Shared Infrastructure Removal
 - * Near/mid-term Infrastructure
 - * UH Observing Time
 - * Governance
 - * Phasing In/Out New/Old Subleases
- * Under MKSOA it is likely that most of these same land authorization terms will apply and therefore need to be negotiated
- * A process that involves many international funding agencies
 - * *How does MKSOA want to engage this process? Who will be involved?*

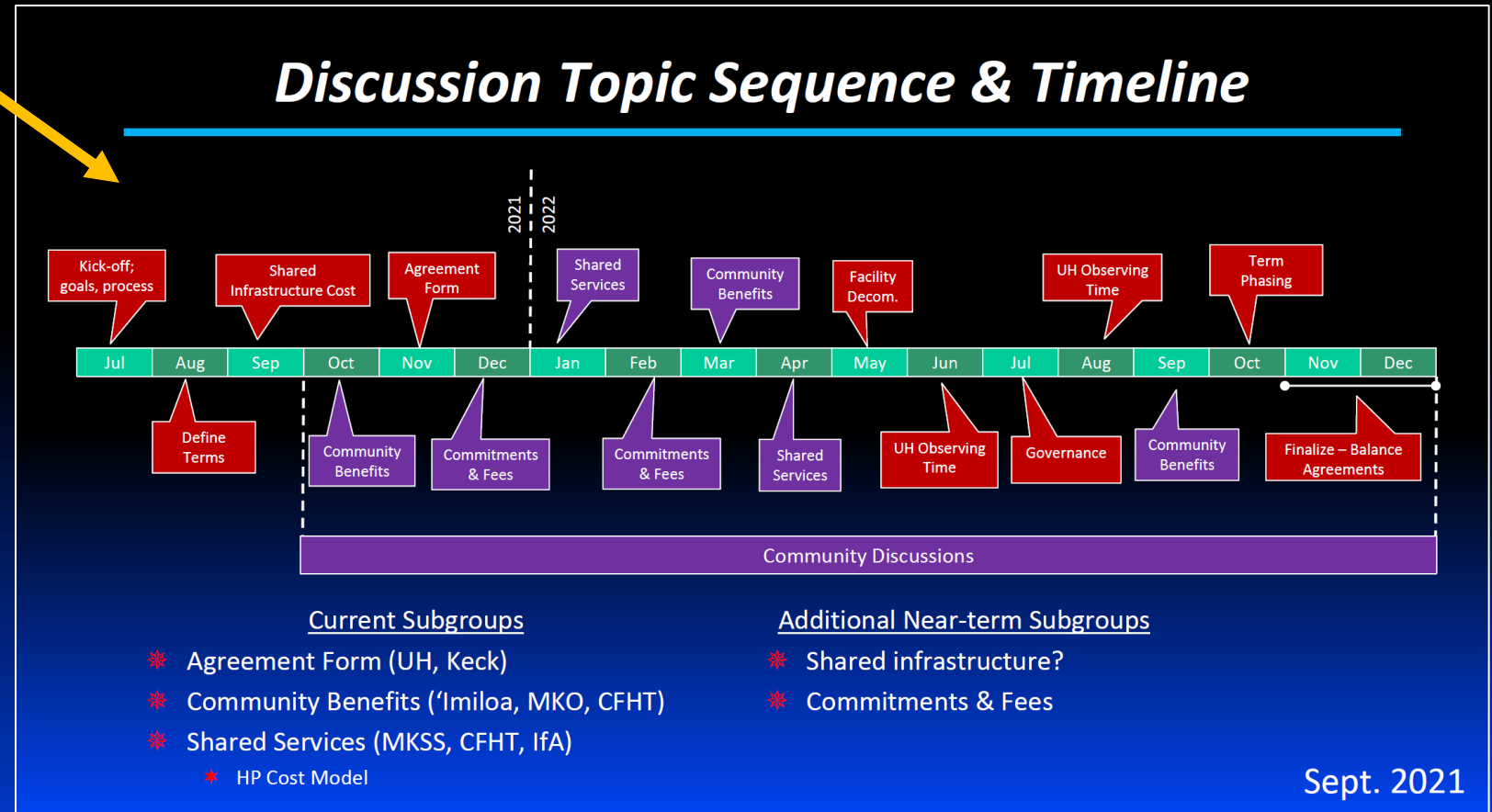


Some Lessons from the Past



Lease Terms Negotiated Over ~18 Months

- * Slide from MKO lease negotiations back in 2021
- * Lease terms laid out over time for sequential monthly meetings involving UH and all MKOs
 - * Subgroups, finance rep's, lawyers, etc. involved
- * Many lease terms were interconnected and needed repeated discussions
- * *Key point – complex process but we made good progress, to the point of bringing finance agencies into the conversation March 2022*





A “Just in Time” Schedule

Master Lease Schedule





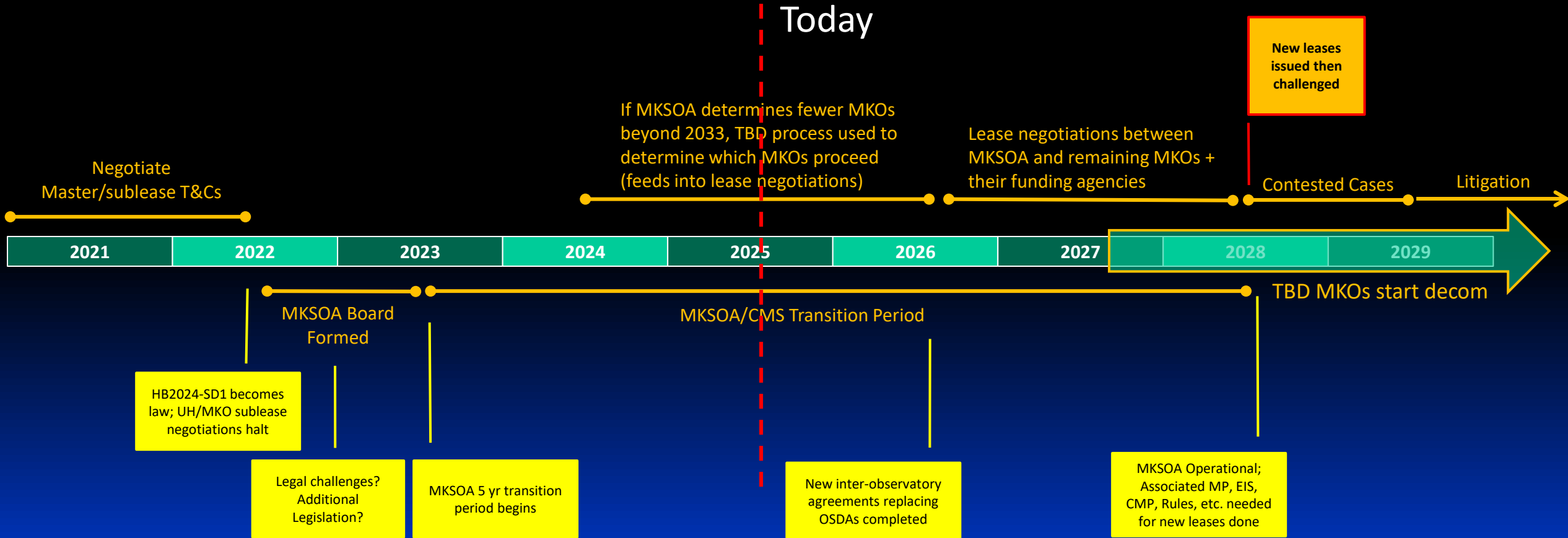
Funding Agency Involvement

- * Crucially, the negotiation process involves a multitude of international funders that need to agree to lease terms (particularly costs)
- * This step adds considerable complexity and time to the process and is easy to overlook





Today - Some Key Schedule Milestones Under the UH → MKSOA Transition



Mahalo

