

CLARENCE KUKAUAKAHI CHING, PRO SE  
64-823 Mamalahoa Highway  
Kamuela, HI 96743  
kahiwaL@cs.com

BOARD OF LAND AND NATURAL RESOURCES  
STATE OF HAWAI'I

A Contested Case Hearing Re:  
Conservation District Use Application HA-3568  
for the Thirty Meter Telescope on the Northern  
Plateau in the Mauna Kea Conservation District,  
Ka'ohē, Hamakua District, Island of Hawai'i  
TMK (3) 4-4-015:009

DLNR File No. HA-CC 16-002  
(CDUA HA-3568)

CLARENCE KUKAUAKAHI CHING'S  
RESPONSES TO THE UNIVERSITY  
OF HAWAI'I AT HILO'S AND TMT  
INTERNATIONAL OBSERVATORY, LLC'S  
JOINT (PROPOSED) FINDINGS OF FACT,  
CONCLUSIONS OF LAW, AND DECISION  
AND ORDER, COS

CLARENCE KUKAUAKAHI CHING'S RESPONSES TO THE UNIVERSITY  
OF HAWAI'I AT HILO'S AND TMT INTERNATIONAL OBSERVATORY, LLC'S JOINT  
(PROPOSED) FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER

COMES NOW, CLARENCE KUKAUAKAHI CHING, PRO SE, and submits CLARENCE  
KUKAUAKAHI CHING'S RESPONSES TO THE UNIVERSITY OF HAWAI'I AT HILO'S AND  
TMT INTERNATIONAL OBSERVATORY, LLC'S JOINT (PROPOSED) FINDINGS OF FACT,  
CONCLUSIONS OF LAW, AND DECISION AND ORDER.

This Contested Case Hearing is based on the Conservation District Use Application HA-3568 ("CDUA")  
for the Thirty Meter Telescope Project ("TMT") to be located in the so-called Mauna Kea Science Reserve  
in the District of Mauna Kea, Ka'ohē Mauka [sic], Hamakua, Hawai'i, TMK (3) 4-4-015:00. The total area of  
the land parcel that is Conservation zoned is 11,288 acres and the area of proposed use is 8.7 acres on Area B  
of the northern plateau. The University of Hawai'i at Hilo ("UH") is the Applicant, with Dr. Donald Straney,  
Chancellor, signatory, dated September 2, 2010, pursuant to Chapter 183C, Hawaii Revised Statutes ("HRS")  
and Chapter 13-5, Hawaii Administrative Rules ("HAR").

I hereby incorporate the Exceptions to Findings of Fact and Conclusions of Law, etc., due Tuesday, June 13,  
2017, of the following Petitioners by reference: Mauna Kea Anaina Hou, Debbie J. Ward, Temple of Lono,  
Mehana Kihoi, J. Leina'ala Sleightholm, Cindy Fretas, William Freitas, Henry Fergerstrom, Flores-Case Ohana  
and KAHEA: the Environmnetal Alliance.

Office of Conservation and Coastal Lands  
Department of Land and Natural Resources  
State of Hawaii  
2017 June 13 2:22 pm

## DISCLAIMERS, OBJECTIONS, RESERVATIONS, JOINDERS, AND INCORPORATIONS

These Disclaimers, Objections, Reservations, Joinders, and Incorporations are filed on behalf of Pro Se Petitioner CHING as part of his response to University of Hawai'i at Hilo's and TMT International Observatory LLC's Findings of Fact, Conclusions of Law, D & O.

1. Incorporate by reference, FINDINGS OF FACT, CONCLUSIONS OF LAW, D & O, of KEALOHA PISCIOTTA, MAUNA KEA ANAINA HOU, PAUL K. NEVES, DEBORAH J. WARD, TEMPLE OF LONO, CASE-FLORES OHANA, MEHANA KIHAI, LEINA'ALA SLEITHOLM, CINDY FREITAS, WILLIAM FREITAS, KALIKOLEHUA KANAEL, HENRY FERGERSTROM, and KAHEA and all their witnesses, witnesses' exhibits and testimonies.
2. The terms Native Hawaiian with a capital "N" and the small "n" are used interchangeably. Our rights as Native Hawaiians, native Hawaiians and Kanaka Maoli under county, state, federal and international laws (including the United Nations Declaration on the Rights of Indigenous Peoples) and other rights protecting customary, international legal law relating to human and civil rights of all people including indigenous peoples are asserted.
3. I incorporate by reference, the FOF COL, D&O of all parties named in (1) above and all their witness' exhibits and testimonies in RESPONSE TO UH/TIO COL 158-162 (re Standing, Jurisdiction (Subject Matter Jurisdiction)), COL 168 - 175 and 196 -200 (re Burden of Proof, Case law (including PASH, HANAPI, PRATT. KAPA'AKAI ANALYSIS etc), COL 204-208 (re Religious Freedom and Contemporary Practice), COL 209-218 (re Waivers, Desecration, Sublease, NHPA/NEPA federal review and any and all other issues addressed or contained in the UH/TIO's Collective table of contents and FOF COL D&O.
4. I reassert my positions (with those in (1) above) regarding the relevant issues as they are laid out in our collective hearings, etc., including our Motions.
5. I incorporate by reference the entire Na Leo video recordings of the five months of evidentiary hearings—as the certified written transcripts on file are decidedly relatively defective even though official. See Na Leo.tv and search TMT Contested Case Hearing.
6. The HO may take Judicial Notice and the OIP has ruled regarding our request to BLNR regarding our Motions and Motions for Reconsideration regarding On-Line Access to the Transcripts.
7. I incorporate by reference all of the Pro Se Parties FOF COL, D&O and again restate that I do not believe we were given sufficient time to review, answer, defend, and/or to adequately address our positions regarding all facts and information contained in this preceding.
- 8.. I join here with the Temple of Lona (TOL) represented by Lanny Sinkin, supplements FOF COL, D&O relating to the multitude of filing if MO including ones that are obviously many long after the fact and moot. Some of the Dispositive Motions could have changed the outcome of this proceeding and so by failing to rule on them in a timely manner means that again our due process rights have been violated. Furthermore, by ruling on them at this post-hearing time means that the actual Record of this case is not in fact complete as defined in law. This also biases and borders on contempt for the Pro Se Petitioners to inundate us with Minute Order after Minute Oder, many obsolete and stale, with only 5 days to file Motions for Reconsideration and multiple due dates nes and FOF, COL, D & Os.

9. I object to the Hearing Officer's not allowing MKAH to call rebuttal Witness' (Tom Peek and Kupuna Liko Martin). Both of these witnesses would have substantive information to added to the hearing that no other witnesses could have added and their testimony relevant and material to help inform this proceeding.

As of this date, Tuesday, June 13, 2017, the Record of this Contested Case Hearing, as defined as HAR Section 13-1-38(a), including times allowing filing of Motions for Reconsideration, etc, is still subject to change and is not complete.

I am also lodging a continuing Objection to the excessively brief 2-week deadline, from the deadline for filing Findings of Fact and Conclusions of Law, and Decision and Order in this Contested Case Hearing. The too brief time period has been advantageous to the oppositional lawfirms representing Applicant University and TMT International Observatory and their battery of attorneys while penalizing singular pro se parties like myself. Considering my dependence on the use of computers at public libraries where I do my primary work, with their restrictive schedules and holidays, parties like me have been biased against.

To add to the situation of both filings, the deadlines have coincided with holidays that make matters excessively complicated. The requirement to have both filings take place in Honolulu, in the front yard of those big Honolulu law firms that can just have somebody run over to file as the 4 p.m. deadlines approach favors them, and works against us who reside on Hawai'i Island. We have to take the weekends, the holidays, the post office, and everything else into minute consideration.

To clarify my filing, all of my exceptions are directed to the filing of Applicant University of Hawai'i at Hilo filing jointly with TMT International Observatory LLC. None of my exceptions respond to any other party or parties.

Petitioner CLARENCE KUKAUAKAHI CHING herein incorporates by reference the responses of Mauna Kea Anaina Hou, Kealoha Pisciotta, Paul K. Neves, Deborah J. Ward, Mehana Ki-hoi, Cindy Freitas, Kalikolehua Kanaele, Temple of Lono, William Freitas, Brannon Kamahana Kealoha, Leina'ala Sleightholm, the Flores-Case 'Ohana, and KAHEA.

My responses follow:

## Table of Contents

FOF 33	5
FOF 40	5
FOFs 62 to 67	5
FOF 73	5
FOF 74	6
FOF 81	6
FOF 107	6
FOFs 146, 147, and 148	7
FOF 151	7
FOF 153	8
FOF 179	9
FOF 183 and 184	9
FOF 191	11
FOF 206 and 207	12
FOF 309	14
FOF 314	14
FOF 322	14
FOF 323	15
FOF 324	15
FOFs 325 and 326	15
FOF 327	15
FOF 329	15
FOF 330	15
FOF 331	15
FOF 332	16
FOF 333	16
FOF 336	17
FOF 339	17
FOF 646	19
<b>Beyond the Scope of the 8 Criteria</b>	<b>20</b>
F. THE UNIQUE COMBINATION OF CONDITIONS THAT MAKES MAUNA KEA A PREMIER LOCATION FOR ASTRONOMICAL OBSERVATORIES. FOF 262-264	20
FOF 264	20
G. THE SCIENTIFIC VALUE OF THE TMT OBSERVATORY. FOF 265-274	20
FOF 266	20
I. TMT PROJECT CONSTRUCTION ACTIVITIES. FOF 279-283	20
J. EDUCATIONAL AND EMPLOYMENT OPPORTUNITIES	20
CONCLUSION	21

### **FOF 33**

FOF 33 bears out Petitioner Ching's proposition (in his proposed Finding of Fact and Conclusions of Law, Document 667, filed on May 30, 2017) that the conclusion of the CDUA process is, in the case of CDUA H-3568 and others, granting (or approval) of the "UH Hilo's CDUA AND issuing a Conservation District Use Permit."

This is a two-step process. While BLNR/DLNR revoked the CDUP (Permit) by Minute Order 36, Document 376, filed on October 14, 2016, the approval of the CDUA (Application) continues to exist in the Legal Records of BLNR/DLNR. **Minute Order 36. Doc. 667**

### **FOF 40**

The issuance of Minute Order 5, Document 016, filed on May 9, 2017, that set a pre-hearing conference on May 16, 2016, violated the 15-day rule.

That the location of the pre-hearing conference set in Honolulu, O'ahu, not on the Island of Hawai'i, meant that most of the Petitioners would not and could not due to financial restraints (especially Mr. Ching, who had been determined to have "pauper" status, who wanted to be present and couldn't afford it) be present (although he, Mr. Ching, was represented by counsel). This was irreversible error. **Minute Order 5**

### **FOFs 62 to 67**

That the entire Record, including all transcripts and evidence of Contested Case Hearing No. 1, were NOT included in the List of Issues was a violation of HAR §13-1-32.4 Records on file with board.

If the Hearing Officer, the Applicant University and/or TMT International Observatory LLC wanted to leave CCH-1 and its Record out of the deliberations of CCH-2 - they would have filed an Amended CDUA or other such document and HAR §13-1-32.4 would have worked for them instead of against them. **HAR §13-1-32.4**

**HAR §13-1-32.4 Records on file with board.** Records directly relating to the application that are on file with the board, including, but not limited to, the record of the public hearing (if held), shall be a part of the record of the contested case; provided, however, that any party may object, in the manner provided in section 13-1-35, to any part of such record. [Eff and comp 2/27/09] (Auth: HRS §§91-2, 171-6) (Imp: HRS §§91-2, 91-9, 171-6) **HAR §13-1-32.4**

### **FOF 73**

While some may subjectively remark that the site visit was reasonable and met the purposes of the case, this writer observes that a visit only minutes long to the summit and northern plateau area may suffice for some people.

Choosing not to be restricted by the stringent and strict rules that the Hearing Officer set for the official visit, this writer decided not to be part of the official contingent and to do his site visit privately. Because we weren't part of the official contingent, we weren't allowed to drive into Area E, but had to walk in. The red balloon was available for observing as we started walking in, but was retrieved before we arrived at the actual Area E site.

Unlike the official group, we were out of the vehicles we rode up in and we were able to offer our respects at the 2 'ahu at the Area E site. We spent at least a couple of hours there and really enjoyed renewing our acquaintance of that area.

#### **FOF 74**

It is noted that the BLNR voided the previously issued CDUP, yet did not rescind the previously approved CDUA.

The CDUA continues to be an approved CDUA and continues, as the Hawai'i Supreme Court opined, to exist as the cart before the horse. The BLNR committed a grave error by only voiding the CDUP, yet not rescinding the CDUA that it had previously approved. The approved CDUA continues to broadcast BLNR's present and on-going approval of the CDUA to the world.

In other words, the singular condition that the Hawai'i Supreme Court relied on to revoke the errored CDUP and remanding the case back to BLNR to carry out a valid contested case hearing continues to be tainted—with the same taint that reversed the BLNR's earlier findings.

#### **FOF 81**

While the Hearing Officer indeed mentioned over the course of a couple of months, back to August 2016, about the general possibility of starting in October 2016, without mentioning any specific dates.

In the meantime, Wurdeman, an attorney in solo private practice, had to address issues relating to his other clients and the courts. He was forced to merge his calendaring needs to the contested case hearings schedule. So when the Hearing Officer hesitated in selecting specific dates, he had to do his calendaring, and he did.

When the Hearing Officer finally decided to select specific dates, it was too late, and Wurdeman had conflicts in his calendar. These conflicts finally resulted in Wurdeman's being forced to withdraw. The conflict that the Applicant University's and TMT International Observatory LLC blames on Wurdeman was not only of Wurdeman's making.

#### **FOF 107**

The description of the relevant procedure for the cutoff of exhibit submissions and moving them into evidence is somewhat, but not totally, correct. A significant portion of the procedure is the cutoff date for exhibit submissions, that Applicant and TMT International Observatory LLC have wrong.

The following discussion also illustrates another example of Hearing Officer's putting rules in place, then changing them at will, without consultation with the parties and getting their consent, to have those rules modified.

On March 2, 2017, the Hearing Officer stated the relevant procedure: "So if you have things coming up today or yesterday or last week and didn't have time to move it into the document library so that it could be uploaded, **do that before March 9th**. Because then on March 9th, you're going to move everything that is in the document library for you into evidence." (Emphasis added) **Tr. 3/2/2017, Vol. 44, p. 288, lines 4-11**

Flora of mauna Kea—<http://www.malamamaunakea.org/environment/flora> was included and discussed in Clarence Kukauakahi Ching's WDT Supplement filed on January 5, 2017. **Ex. B.19d, p.8** (actual pages were not numbered).

In his WDT Supplement filed on January 5, 2017, Mr. Ching identified and stated: "However, going to Office of Mauna Kea Management's website (<http://www.malamamaunakea.org/environment/flora>) at the bottom

of the page, the following is found: “A survey of lichens on the summit of Maunakea identified 21 species (plus five possible other species). Around half of the lichen species found on Maunakea are endemic (found only in Hawai‘i), two of which (*Pseudephebe pubescens* and *Umbilicaria pacifica*) are limited to Maunakea alone. The remaining species are indigenous to the Hawaiian Islands.” (Emphasis added) **Ex.B.19d, p.8**

Ex. B.19i Flora of Mauna Kea (<http://www.malamamaunakea.org/environment/flora>) was filed on March 8, 2017, before the deadline of March 9, 2017. **Ex. B.19i**

In Document 649, Minute Order 44, despite total compliance with the Hearing Officer’s “rule,” and upon the mistakenly-based objections of the Applicant and TMT International Observatory LLC, the Hearing Officer “Denied in consideration of TIO and U.H.H. objecting” and further stating: “Untimely. Mr. Ching **did not identify or produce Exhibit B.19i until March 8, 2017**, after the close of testimony portion of the CCH on March 2, 2017.” Mr. Ching did identify the item and cited it in his WDT Supplement—and timely filed it. (emphasis added) **Minute Order 44, Document 649, p.36**

Despite Mr. Ching’s full compliance with “the rule,” the non-admission into evidence of Ex. B.19i was either Hearing Officer’s irreversible error or, in the alternative, the result of another irregular rule change (without consultation and consent) as incorrectly encouraged by Applicant University of Hawai‘i Hilo and Intervenor TMT International Observatory LLC in their uninformed and irregular objections..

#### **FOFs 146, 147, and 148**

Despite the Maunakea Invasive Species Management Plan—invasive species, such as fireweed, fountain grass and mullein, are prevalent below the summit region. Apparently, this effort was initiated too late—and these species are out of control on the Mountain.

#### **FOF 151**

“... DLNR as the landowner.” DLNR is NOT the landowner. The so-called “State of Hawaii” is also NOT the landowner. Shall we agree to avoid the myth of ownership and correctly refer the “state” and DLNR in their rightful terminology?

The so-called “ceded lands” of Mauna Kea came to be as a result of the Hawaii Admissions Act, Section 5(f). To be correct, the “state” is the Trustee of the so-called “ceded” lands, and DLNR is ONLY the “state’s” department that administers and manages the “state’s” “ceded lands.”

**AN ACT TO PROVIDE FOR THE ADMISSION OF THE STATE OF HAWAII INTO THE UNION, ACT OF MARCH 18, 1959, Pub L. 86-3, 73 Stat. 4**

#### “Section 5(f)

The lands granted to the State of Hawaii by subsection (b) of this section and public lands retained by the United States under subsections (c) and (d) and later conveyed to the State under subsection (e), together with the proceeds from the sale or other disposition of any such lands and the income therefrom, **shall be held by said State as a public trust** for the support of the public schools and other public educational institutions, for the betterment of the conditions of native Hawaiians, as defined in the Hawaiian Homes Commission Act, 1920, as amended, for the development of farm and home ownership on as widespread a basis as possible for the making of public improvements, and for the provision of lands for public use. Such lands, proceeds, and income shall be managed and disposed of for one or more of the foregoing purposes in

such manner as the constitution and laws of said State may provide, and their use for any other object shall constitute a breach of trust for which suit may be brought by the United States.

The schools and other educational institutions supported, in whole or in part out of such **public trust** shall forever remain under the exclusive control of said State; and no part of the proceeds or income from the lands granted under this Act shall be used for the support of any sectarian or denominational school, college, or university.”

### **FOF 153**

Decommissioning Plan. “Section 5 of the Decommissioning Plan states the University’s long-term goal of having fewer observatories in the summit region, while maintaining a world-leading observatory complex for education and research in ground-based astronomy.”

With substitution of a few words and the sentence taken out of context (of related sentences), this sentence, taken by itself, results in a poorly intentioned meaning. It’s particular construction is only partly true—and it becomes a relative half-truth. Sure, it speaks about decreasing observatories on the summit, yet it doesn’t clearly relate the statement to overall Decommissioning. What it is really trying to say is that new observatories will not be built on Kukahau‘ula Ridge (the summit area) in the future—thereby decreasing the number of “observatories in the summit region.”

In addition to having taken the sentence out of the contextual relationship it had with other sentences in the “real” document, by changing a few words and their locational relationships, the writer lost the real intent of the sentence and caused the reader to wonder what the sentence was really all about.

A “normal” reader of the sentence could surely interpret it as saying that there will be decreasing numbers of observatories at the summit as the General Lease termination date approaches, not that all facilities at all sites (on the Mountain) will be gone by the lease termination date of December 31, 2033.

There is a possibility that the writer’s intention is really to say that while the numbers of observatories on the Mountain will be decreased by the lease termination date, and with some subliminal wishful thinking that some observatories will remain on the Mountain beyond 2033 (since the TMT’s projected useful life is 50 years—that would take it’s continuation on the Mountain into the 2070s—way beyond the present lease termination date).

The true context of the subject sentence—as it relates to the actual discussion of the Decommissioning Plan that is Section 5 of Exhibit A-013 reads:

“In order to better understand the factors that influence the decision-making process regarding the timing of decommissioning, a discussion of the lifecycle of a telescope is presented. (see Section 5.1). The decision to recycle a site, which includes reuse of some facilities and infrastructure, may also involve some elements of the decommissioning process (see Section 5.2).

UH sees a future for sustainable astronomy on the summit of Mauna Kea. The long-term goal is to eventually have fewer observatories in the summit region, but maintain its status as a world class center for education and research in ground-based astronomy.”

On the other hand, the real purpose of the Decommissioning Plan is to structure the eventual removal of all



observatories by the end of the General Lease on December 31, 2033. And that is clearly stated in another location of that document.

#### 1.1. Background and Purpose (of the Decommissioning Plan)

“The current master lease ends December 31, 2033, and would require removal of all facilities at all sites to be completed by this date.” **Ex. A-013, p.1**

NOTE TO HEARING OFFICER—This style of writing that can be mis-interpreted if written out of context is prevalent throughout the Applicant University of Hawai‘i at Hilo’s and Intervenor TMT International Observatories LLC’s (Proposed) Findings of Fact, Conclusions of Law, and Decision and Order.

It’s a nuisance to have to check the correct intent and accuracy of every sentence in the entire document of 224 pages to ascertain the true context in which the statement is made.

This kind of sloppy work in FOF 153—and every other such defective FOF in the entire document should be stricken.

#### **FOF 179**

The narrative of FOF 179 states: “The Board’s jurisdiction also includes control over decisions affecting native Hawaiian traditional and customary practices.”

I don’t believe this is a true statement.

Article XII, Section 7 of the Hawai‘i State Constitution states: “The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua‘a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.” [Add Const Con 1978 and election Nov 7, 1978].

It’s a far cry from “...subject to the right of the State to [reasonably] regulate such rights,” to the statement “jurisdiction includes control over decisions affecting native Hawaiian traditional and customary practices.”

While there are those who would favor the “control” interpretation over the meaning of “regulate.” Furthermore, to “reasonably” regulate does not connote jurisdictional “control” over traditional and customary practices. This was not an absolutely true statement.

#### **FOF 183 and 184**

Applicant University’s Management. First of all, it is to be noted that the Hawai‘i State Audit Report is that the University (and DLNR) “have addressed many of our recommendations, ....” The report, however, did not say that all recommendations have been addressed. Therefore, there still are items that need to be addressed.

Also, there are action items in the CMP that are still pending or in progress and NOT yet completed. It’s a work in progress. Whether the current status, incomplete as it is, is acceptable for recommendation to approve the CDUA, or not is the question. There is no proposed timeline for completion.

The University’s mandate is to support Hawaiian cultural practices. Many would say that the University has not successfully fulfilled its mandate. It’s supposed to support practitioners access to Mauna Kea. Yet there

are numerous occasions when Applicant University's Office of Mauna Kea Management, supposedly with approval by Dr. Straney himself, has irreparably and illegally restricted cultural practitioners from ascending the Mountain.

One of these events occurred on October 7, 2014, the day of the proposed groundbreaking ceremony. As the so-called Mauna Kea Protectors worked their way up the Mountain, and turned left at the Batch Plant area to approach of the Loop Road, they were met by 2 vehicles blocking the road, restricting access past them. The Protectors pulling off the road into the Batch Plant area got out of their vehicles and approached the roadway that they had just left, the road past that point being blockaded by 2 vehicles. A picture of the scene, in evidence, shows that exact moment. The Applicant University—probably claiming that it closed the roadway for purposes of protecting health and safety is depicted. This is just another example of the Applicant University's restriction of cultural practitioners' accessing Mauna Kea by use of its agency, Office of Mauna Kea Management.

**Ex. B.19b**

There is another, more serious lockout of cultural practitioners on Mauna Kea—this time, of unreasonable time and group restrictions, for an unbelievably unwarranted and extended period of time, beginning approximately on June 24, 2015, promulgated without compliance with applicable rules for rule-making, and lasting in excess of a month. This extended restriction was accompanied by another unwarranted and “illegal” restriction—the closing of the Visitors' Center, including the restrooms and locking of all port-a-potties in the area—resulting in converting the area in and around the Mauna Kea Visitors' Center at HalePohaku into a public restroom.

A portion of a letter from Attorney Richard Wurdeman to “State” Attorney General Doug Chin, dated July 7, 2015, in evidence, is copied here. This segment of the letter memorializes the extended and unwarranted restriction of cultural practitioners from access to the summit area of Mauna Kea—the rule promulgated without benefit of accepted and required statutory rule-making.

These are the kind of antics that should disqualify the Applicant University from having its CDUA approved and a CDUP issued. The segment of the letter states:

“My clients have been told by OMKM Rangers, while accompanied at the roadblocks by (armed) DOCARE officers, who, by the way, have also refused to provide badge numbers and names when asked, such things as you may only enter at 1 p.m. for a period of time not to exceed one hour and only when there is an OMKM Ranger/DOCARE escort available. On one of the days, such escorts were apparently not even available at the 1:00-2:00 p.m. time period. My clients have also learned that there is apparently a no more than 10 Native Hawaiian at a time rule that has been implemented. Apparently, any group of Native Hawaiians, that exceeds ten in number, needs to apply and be issued some sort of permit. My clients have asked to see these specific rules in writing and the OMKM/DOCARE personnel have refused to provide them with copies of any rules. At the same time, complete and unfettered access has been granted to observatory workers at Mauna Kea, which undermines all of this nonsense in the papers about safety issues that has been disseminated by the State Administration and your office, and which also further shows the illegal and arbitrary enforcement of the rules and provisions in question.” **Ex. B.19c**

## FOF 191

Applicant's and TIO's characterization of what Dr. Edward Stone said in his Verbal Testimony on December 19, 2016, is a stretch.

Dr. Stone said, "In fact, the National Academy of Sciences recommended that there is a priority for a 30-meter segmented mirror telescope in the year 2000."

Dr. Stone's "there is a priority" does not equate to the Applicant's and TIO's characterization as "recommended to prioritize a 30-meter segmented mirror telescope." While the creative use of "to prioritize" may connote to most readers that the TMT may be assumed to have been awarded a "first priority," the truth of the matter is that the TMT did not. **Tr. 12/19/16, Vol. 18, p.6**

In *New Worlds, New Horizons in Astronomy and Astrophysics: National Research Council (2010)*, in evidence, the following is stated:

Recommendations for New Ground-based Activities—Large Projects

Priority 1 (Large, Ground). Large Synoptic Survey Telescope (LSST)

Priority 2 (Large, Ground). Mid-Scale Innovations Program

**Priority 3 (Large, Ground). Participation in a Giant Segmented Mirror Telescope (GSMT)**

Priority 4 (Large, Ground). Participation in an Atmospheric Cerenkov Telescope Array (ACTA)

Yes, the TMT, being a Giant Segmented Mirror Telescope, does have a priority—a Priority of 3. That is a far cry from what the Applicant and TIO seem to intend in FOF 191. TMT - in national discussions—has a Priority of 3 (not 1 as is seemingly hinted at).

**Ex. B.19e p.223-234**

The Final Environmental Impact Statement (FEIS), dated May 8, 2010, is outdated. On Page S-2 of the EIS, the text reads:

"Project Purpose, Need, and Objectives

The Project's overall purpose is to provide a 30-meter ground-based telescope, which was identified in the 2001 National Academy of the Sciences Decadal Survey for Astronomy as the most critical need for ground-based astronomy. Such a telescope would be a critical part of future astronomy facilities planned for 2015 and beyond."

Debatably, the above statement is probably the most important statement in the entire Final Environmental Impact Statement. If it were not for "the most critical need for ground-based astronomy," there would be no need to address the entire TMT Project.

However, while the statement was probably true in 2001, the statement may not be true today, in 2017. If, indeed, the statement were true in 2010, the year in which this Final Environmental Impact Statement was filed, one would expect that the National Science Foundation (the federal government's funding agency) would have, upon application, funded at least a portion of this TMT Project. Yet, as it is general knowledge today, the federal funds that would have come to this project because of its high "critical need" did not come. So, why is that?

The 2011 National Academy of the Sciences Decadal Survey had a change of heart, making the most important statement of this Final Environmental Impact Statement, the 2001 statement untrue. The 2011 position of the Decadal Survey, although it continued to like these very large, ground-based telescopes, didn't categorize them by giving them the highest priority. In essence, the primary purpose that drove the initial movement to build the TMT Project had evaporated—and no money was produced. **Ex. B.19d, p.4-5** (pages were not actually numbered).

This is another example of the FEIS being outdated. It should have been either amended or supplemented, yet neither modification was adopted, resulting in a defective and out-dated document, because of changes in the NSF world. The document should be stricken.

An article in *Science Magazine*, dated May 14, 2015, written by Jeffrey Mervis and Adrian Cho: “NSF should help build massive telescope in Hawaii, says senior appropriator” states:

“A 2011 decadal survey of the field by the National Research Council of the U.S. National Academies ranked a giant segmented-mirror telescope as one of its top three priorities for ground-based optical and infrared astronomy. The report recommended the United States pay for 25% of construction of either TMT or its competitor, the Giant Magellan Telescope, which would sit atop Cerro Las Campanas in Chile. The panel also recommended NSF eventually spend a similar amount in equipping or operating the second telescope.” **Ex. B.19d, p.5** (pages were not actually numbered).

...

Correction, 15 May [2015], 2:36 p.m.:

The priority ranking given to a giant segmented-mirror telescope by the 2011 decadal survey has been corrected. It was given third priority, not first, primarily because other projects were more “mature.” **Ex. B.19d, p.5** (pages were not actually numbered).

As of 2011, the TMT Project does not have the mistaken first priority that was seemingly announced in 2001, but had slipped to 3rd Priority by the 2011 Decadal Survey. All of the propaganda that seemingly suggested that the TMT Project that its PR appointees continued to communicate to the world had the highest priority was plain old b.s. That b.s. cannot be allowed to control the results of this Contested Case Hearing and the Final Environmental Impact Statement must be stricken. **Ex. B.19d, p.5-6** (pages were not actually numbered).

#### **FOF 206 and 207**

The corporations. Although TMT Observatory Corporation is the designated 3rd Party Beneficiary of the CDUA, there are minimal facts of it included in these 2 FOFs.

TMT International Observatory LLC (a stranger corporation to the CDUA), by a conspiracy of TMT Observatory Corporation, TMT International Observatory LLC, the University of Hawai'i System, including University of Hawai'i at Hilo, and BLNR/DLNR, was allowed to be the Sublessee of the now revoked BLNR Consent to the so-called TMT Sublease.

There is every reason to believe that the Hearing Officer continues to believe that these 2 corporations are, by some stroke of magic, interchangeable, and this is despite the law of corporations that says that every corporation is an individual legal entity. However, to make it as clear as can be, the following, right out of these corporation's official records, is put on the record.

**TMT Observatory Corporation (TMT)** is a non-profit public benefit corporation whose purpose is to conduct fundamental research and development and foster scientific interaction between educational and research institutions and to further college and university educational research in astronomy. TMT was founded by The Regents of the University of California (UC) and the California Institute of Technology (Caltech), hereinafter collectively called “founding members” for the initial purpose of developing the design of a giant segmented mirror telescope, the Thirty Meter Telescope, with the goal of constructing, commissioning and operating an observatory. [TMT Observatory Corporation, Financial Statements, September 30, 2014 and 2013] **Ex. B.19a, p.3-4**

**TMT International Observatory, LLC (TIO)**, a Limited Liability Company, was formed in the state of Delaware in 2014 by the California Institute of Technology (“Caltech”), the University of California (“UC”), the National Institute of Natural Sciences (“NINS”) and the National Astronomical Observatories of China, Chinese Academy of Sciences (“NAOC”), hereinafter collectively called “the Members” for the purpose of providing for the observation and collection of images and information from deep space to advance human knowledge of astronomy and the origins of the universe by and through the execution of the Thirty Meter Telescope Project hereinafter called the “TIO Project”. TIO is responsible for the execution of the TIO Project through the construction, commissioning and operation of an observatory. Each of the Member [sic] has signed the Limited Liability Company Agreement of TIO (“Company Agreement”) and a Contribution Agreement with TIO. Prior to establishment of TIO in May 2014, the pre-construction activities were managed by TMT Observatory Corporation (“TMT Corp”), a not for profit public benefit corporation, formed by Caltech and UC. Since May 2014, TMT Corp managed the in-kind construction contributions of Caltech and UC. In 2014, TIO also entered into a Personnel Administrative Agreement with TMT Corp under which TMT Corp provides labor and support services to TIO. [From TMT International Observatory, LLC Notes to Financial Statements December 31, 2014] **Ex. B.19a, p.4**

Liability of the Members [of TIO] under the Company agreement is limited so that no Member shall be individually obligated to any third party for any debt, obligations or liabilities [including the “State” of Hawai‘i] of TIO. Each Member’s liability for the debts, obligations or liabilities of TIO is limited to the maximum extent of the Members’ Contribution. “Contribution” means any money (excluding loans), property provided, services rendered, or any commitment or agreement to provide money, property or to render services to TIO by a Member that is reflected in the various agreements which have been made between TIO and its Members. [From TMT International Observatory, LLC Notes to Financial Statements December 31, 2014] **Ex. B.19a, p.4**

Until May 2014, TMT was responsible for managing the execution of the TMT Project including the pre-construction contributions by Caltech and UC. During this time, TMT received contributions solely from both institutions and revenue from NAOJ for some contracted effort. Since May 2014, TMT has managed the in-kind construction contributions of Caltech and UC to TIO and has continued to manage a multi-year cooperative agreement with the National Science Foundation (NSF). In 2014, TMT also entered into a Personnel Administrative Agreement with TIO under which TMT provides labor and support services. [TMT Observatory Corporation, Financial Statements, September 30, 2014 and 2013] **Ex. B.19a, p.4**

To have these Notes side-by-side will probably be very helpful to those who have had a difficult time understanding that these are 2 independent and different corporations and that they have been operating together since TIO was incorporated in 2014.

Fortunately, there are individuals, such as Archaeologist Robert Rechtman, witness for TIO, who is able to help unravel the somewhat confusing situation. He was able to work for both corporations—at the same time. And, even he had trouble deciding which corporation he was working with at any one particular time. His testimony, when cross examined by Intervenor Ching went like this:

CHING: So when you dealt with TMT Observatory Corporation, and also later on when you dealt with TMT International Observatory LLC, you dealt both times with the same person, Paul Gillet, is that correct?

RECHTMAN: He was my contact, yes.

CHING: When you dealt with Paul Gillet, how did you know whether you were dealing with him for TMT Observatory Corporation or for TMT International Observatory LLC?

RECHTMAN: I personally don't know the distinction, so I didn't, ...It didn't occur to me to know that whether who...which entity I was dealing with.

So, to understand their actual roles:

TMT Observatory Corporation (TMT) IS the designated beneficiary of the TMT CDUA.

Because there has been no Amended CDUA filed—TMT International Observatory LLC (TIO) is NOT the 3rd Party Beneficiary. Unless there are documents that assign, or otherwise transfer, the rights that is TMT's, TIO cannot be the valid Sublessee of any Sublease—at present or in the future—unless the Players conspire to do things otherwise, which they did with the TMT Sublease.

There was no Amended CDUA, nor were there any Assignment or other document that made the legal transfer. Therefore, TIO as the Sublessee of the TMT Sublease was not legal.

#### **FOF 309**

Except for coloring the roadway red, the other steps to be implemented by this FOF will result in economic and clean benefits to operations of the proposed TMT, if and when the CDUA is approved and a CDUP issued.

#### **FOF 314**

As no other observatories on the Mountain are restricted to this condition, and that this condition should be present practice on the entirety of the Mountain, the Hearing Officer should recommend that all present observatories on the Mountain with the exception of those that have already initiated Decommissioning protocols have such retrofitted work done. Then, all human-sourced pollution that is currently entering the aquifer of Mauna Kea will be curtailed.

#### **FOF 322**

Re: Restoration of Batch Plant Staging Area. The restoration of the Batch Plant Staging Area that will follow the completion of construction of the proposed TMT Observatory at Area E, will only be “un-restored” again upon TMT Decommissioning when the “restored” material at the Batch Plant will be sequestered to “restore” Area E.

In other words, this seemingly positive resulting “restoration” of the Batch Plant area will only be temporary.

**Ex. A-1/R-1, Ex. B, App. A, p.A-9**

**FOF 323**

This not mitigation. Actually, this isn't needed. In fact, it discriminates on older and disabled cultural practitioners who have a difficult time in walking and could be advantaged by being able to ride to important cultural locations on 4-wheel drive vehicles. In a few years, I might have problems visiting Pu'uPoliahu.

**FOF 324**

Would the TMT Project get credit for this "mitigation" item if it only sent more than \$1? Will \$10 be 10 times better and get more points? This is such a nebulous project from which to garner nebulous credit.

**FOFs 325 and 326**

Can real results be guaranteed if these people only need to be engaged for the required times? It isn't as "required" enough because some have testified as witnesses in this contested case hearing that were able to work on the Mountain without having had to take the "required" training.

**FOF 327**

Dr. Ku Kahakalau has a right to have an opinion despite the fact that her opinion is in conflict with Applicant University's.

**FOF 329**

If it is the letter from President Lassner of the University to Governor Ige—all it is is Lassner's written promise or offer. It is NOT formal NOR binding. Will any of this offer be enforceable in court? I don't think so. Or would it be enforceable and binding on succeeding presidents and administrators of the University and governors? I don't think so.

Furthermore, to subtract the small impacts of a number of "small" observatories and replace them with a gigantic observatory with gigantic impacts is NOT mitigation. It is just the replacement of small "old" impacts with large "new" impacts. Because of the unprecedented size of the proposed TMT, the cumulative impacts become enormous.

A unilateral letter that speculates on a future speculation is not legally binding. It is only an expectation, if any. If the subject letter is NOT the one I'm talking about, please show me the letter!

**FOF 330**

The Petitioners and opposing Intervenors are also members of the public who do not agree. Additionally, the THINK Fund is discriminatory. For example, an example of discrimination is Ku'uipo Freitas, the daughter of Opposing Intervenors, Billy and Cindy Freitas, a graduate student working on a Masters degree and is in good standing with her university, who was rejected from participating in THINK Fund monies (it is believed because she has been anti-TMT). This ought not to happen.

**FOF 331**

The Decommission Plan is a plan to plan a decommissioning. There is nothing that the TMT will be agreeing with other than to agree to participate in a Plan to Decommission at some future date that will be triggered by termination of the General Lease, termination of a Sublease or TMT's decision to end operations. The process starts with the filing of a Notice of Intent.

However, the TMT Sublease has been effectively terminated (by revocation of BLNR's Consent by the 3rd Circuit Court). **Ex. B.19h**

The TMT Sublease states:  
AGREEMENT

10. Effect of Termination or Expiration: Decommissioning. Upon termination or expiration of this Sublease, Sublessee shall at Sublessor's sole option and at Sublessee's sole cost and expense either (a) surrender the Subleased Premises with all improvements existing or constructed thereon, or (b) decommission and remove the TMT Facilities and restore the land in accordance with the CMP and the Decommissioning Plan for Mauna Kea observatories. **Ex. B.02f, p.8**

The Decommissioning Plan states:

1.2 Observatory Decommissioning Process

...

Decommissioning is initiated when a sublessee decides to cease operation due to changing priorities, lack of funding, or obsolescence; when the sublease expires; or if UH revokes a sublease (See Section 5.1).

**Ex. A013, p.3**

...

4.2 Site Decommissioning Plan

A Site Decommissioning Plan (SDP) documents the condition of the site, outlines an approach to decommissioning, and proposes a plan for site restoration, if applicable. Each SDP shall be developed in stages consisting of the four components: (1) a Notice of Intent, .... **Ex. A013, p.18**

TIO, according to the requirements of the TMT Sublease and the Decommissioning Plan, is now in Non-Compliance to their requirements. The Non-Compliance to the requirements of the TMT Sublease AND the Decommissioning Plan should disqualify TMT Observatory Corporation (the real 3rd Party Beneficiary AND TMT International Observatory LLC, the pretender stranger corporation) from being granted a CDUP. The TMT Observatory AND TMT International Observatory LLC are disqualified from being granted a CDUP.

### **FOF 332**

If indeed, the TMT is built and the excess materials are used to restore the Batch Plant area, it will only be un-restored again upon TMT Decommissioning when the "restored" material at the Batch Plant will be sequestered to "restore" Area E. In other words, this seemingly positive resulting "restoration" of the Batch Plant area will only be temporary.

### **FOF 333**

With termination of the TMT Sublease, that triggers the Decommissioning Plan, the Site Restoration Plan can be initiated with restoration of the Groundbreaking Pad, the geotechnical hole,s and the Access Road. TMT International Observatory LLC is presently in Non-Compliance by failing to file a Notice of Intent that has been triggered by termination of the TMT Sublease. See FOF 331 above.



**FOF 336**

Upon decommissioning, the abandonment of certain facilities below grade, in most cases, is a cop-out and should be frowned upon.

While leaving these facilities in place because it might be more potentially disturbing than to have them removed, cost should not be a considered factor. The rule should be—everything being equal—removal should be the more desired outcome.

This is another example of the Decommissioning Plan being a plan to plan. There is no guarantee that cultural practitioners, for instance, will have any part of the decision-making process that could/would take place.

**FOF 339**

While The Mauna Kea Plan (of 1977) is entitled “The Mauna Kea Plan,” it would have been more properly be entitled “The Mauna Kea Master Plan of 1977.” The Mauna Kea Plan was promulgated by memorandum of then Acting Governor George Ariyoshi to Sunao Kido, Chairman of the Board of Land and Natural Resources on November 1, 1974. In the memo, Governor Ariyoshi, stated: “ To assure that full consideration is given to all aspects of permitted, controlled and prohibited uses, you are hereby directed to develop and promulgate as expeditiously as possible, a Master Plan for all of the Mauna Kea above Saddle Road.” Governor Ariyoshi added: “Finally, the promulgation of the Master Plan should include its adoption by the Board of Land and Natural Resources following public hearings, and should provide for both the enforcement of the Plan and procedures for its amendment.”

While some aspects of the Plan were couched in “guideline” language, there are key parts of the Plan that are “mandatory” and are written in mandatory language. The item that Ching brings up is written in “mandatory” language. It isn’t possible to write a directive in more mandatory language that it is in this case.

“No application for [sic in UH’s and TIO’s FOF 339] any proposed facility shall have final approval without the applicant having first filed with the Board, adequate security equal to the amount of the contract to construct the telescope facilities, support facilities and to cover any other direct or indirect cost attributed to the project.

Other current plans do not curtail the present effectiveness of “The Mauna Kea Plan.” The “Mauna Kea Science Reserve Master Plan” approved by the University’s Board of Regents on June 16, 2000, is “an internal policy and planning guide for the University...” See discussion at FOF 123.

“The Comprehensive Management Plan is an integrated planning guide for resource management that is designed to promote the protection of Mauna Kea’s unique cultural, natural, recreational, educational, and scientific resources.... The CMP is an adaptive management plan that provides general management guidelines and does not provide full or complete details on all projects contemplated.”

The TMT is outside the scope of the CMP. See discussion at FOF 136.

The Mauna Kea Plan (of 1977) as it relates to the subject of “security” continues to be effective as mandatory (when it says it is) to any potential approval of CDUAs by the Board of Land and Natural Resources.

However, an added consideration stemming from the 1977 Mauna Kea Plan is the following:

“Upon completion of the project to the satisfaction of the Board, adequate security shall be deposited to cover the cost of removal of the facility should that be necessary ....”

This directive doesn't say that the money should start to be set aside at the end of construction and the beginning of operations. It does, however, say that the money will be there and deposited upon completion of project construction.

### **FOF 508**

This is a very complex and perplexing FOF. In its 8 lines is hidden what amounts to pages of important information. While its possible scope covers a lot of ground, there are un-included facts that allegedly would have reversed outcomes of issues that it appears to have successfully argued. In fact, it uses the “apples and oranges” non sequitur adjunct well.

The FOF starts out with what appears to be an actual grant of \$250,000 to TMT Corporation. This is only a partially true statement. The following notes the total story:

“The Thirty Meter Telescope (TMT), a giant observatory that astronomers hope to build by the end of this decade, is expected to cost at least \$1 billion. So a grant of \$1.25 million may seem miniscule. Nonetheless, the backers of TMT are viewing a new 5-year, \$250,000-per-year grant from the National Science Foundation (NSF) as a significant milestone.

Until a few years ago, planners of TMT and its rival project in the United States—the 24.5-meter Giant Magellan Telescope (GMT) were hoping to get the U.S. government to bear a sizable portion of their respective project costs. But in December 2011, NSF announced that there was no money available to support construction of either project until the mid-2020s. However, NSF put out a solicitation for proposals offering \$1.25 million for the development of a public-private partnership plan that could lead to the construction of a large telescope, should NSF be able to provide funds in the future.

The GMT partnership, which is led by the Carnegie Observatories and other institutions, announced in April that it would not make a bid for the NSF grant. That effectively left TMT as the sole contender for the NSF award. TMT announced on Sunday that it had been awarded the grant.”

The date of the article is Mar. 19, 2013. **Ex. B.17a1**

So, the truth of the matter is that the TMT Observatory Corporation was awarded a 5-year, \$1,250,000 grant, with an award of \$250,000 per year. The total grant was NOT \$250,000.

Then, the narrative of FOF 508 switches to TIO.

“TIO has not applied for any construction funding from the NSF.”

So have the Applicant and TIO—in the subject document—skirted any alleged problems? They thought they had. However, more interesting, the question that should have been asked is: “Has TMT Observatory applied for any NSF funding—for construction funds or otherwise—that would have if it had been successful, triggered a Section 106 proceeding and a Federal EIS? I would venture that it has.

Given the alleged “priority” position that TMT was in in the 2001 time period, nobody in his/her right mind would have hesitated to apply for such “free” money.

The prohibition of “Discovery” in this contested case hearing, had it been available, would have assisted in answering many key questions in this area. However, because of the strict no-discovery position of the Hearing Officer, many answers of important questions will never become known to the finder of fact.

However, the TMT, although not in its own name, has been benefited by millions of dollars without having to acknowledge the basic facts, which would have also triggered the Section 106 process.

The Division of Astronomical Sciences of the National Science Foundation (NSF) awarded Abstract #0443999—Enabling a Giant Segmented Mirror Telescope for the United States Astronomical Community for \$18,000,000 and a start date of September 1, 2005, to Association of Universities for Research in Astronomy, Inc. (The Association of Universities for Research in Astronomy (AURA) is a consortium of 44 US institutions and 5 international affiliates that operates world-class astronomical observatories. AURA’s role is to establish, nurture, and promote public observatories and facilities that advance innovative astronomical research. In addition, AURA is deeply committed to public and educational outreach, and to diversity throughout the astronomical and scientific workforce. AURA carries out its role through its astronomical facilities.)

ABSTRACT—The design and development of a Giant Segmented Mirror Telescope is the highest ranked ground-based initiative in the 2000 astronomy and astrophysics Decadal Survey. The GSMT is envisioned to be a public/private partnership requiring approximately equal contributions from both funding sources for design, construction and operation. Funds from this award will further the GSMT effort in the following areas: (1) The design and development phase for a 30-meter diameter segmented-mirror, optical/infrared telescope, the Thirty Meter Telescope (TMT); ... **Ex. B.01b**

While it is true that this \$18 million NSF grant did not go directly to TMT - the benefits of the grant surely did. So, while FOF 508 is technically true is the following statement: “The NSF was not involved in the design of the TMT Observatory.” The truth is that TMT did reap millions of dollars of benefits from this grant that was made to a different-named organization. By these differently-structured strategies - the TMT has been successful in seemingly “hiding” grants that would have otherwise required a Section 106 process and the necessity for conducting a Federal EIS.

#### **FOF 646**

The Applicant University’s and Intervenor TIO’s statement is NOT accurate. (See response of KAHEA.) While they attribute the use of the term “wilderness” to Malo, they should have attributed the use of the term to Emerson, Malo’s translator, who, in Footnote 6, used the term “waste places of the earth.” The passage quoted CANNOT be attributed to Malo. This major discrepancy is typical of Applicant’s self-promoting irregular views expended throughout all aspects of this contested case hearing. A CDUP CANNOT be recommended to be granted on such defective viewpoints and interpretations to an unqualified applicant.

## **Beyond the Scope of the 8 Criteria**

The following Findings of Fact are irrelevant, immaterial, and are beyond the scope of the issues to be considered by Rule of the Hearing Officer. They are definitely outside the scope of the 8 Criteria.

### **F. THE UNIQUE COMBINATION OF CONDITIONS THAT MAKES MAUNA KEA A PREMIER LOCATION FOR ASTRONOMICAL OBSERVATORIES. FOF 262-264**

#### **FOF 264**

The proximity of other astronomical facilities in this age of electronic and fiber optic communications is a non-considerative factor. With remote and robotic electronic communications and connections, including fiber optics, “proximity” just does not matter.

### **G. THE SCIENTIFIC VALUE OF THE TMT OBSERVATORY. FOF 265-274**

#### **FOF 266**

There seems to be a disconnect between touting “[o]bservatories on Mauna Kea were involved in the majority of astronomical breakthroughs in the last 50 years.” And “[t]he yearly number of scientific publications from Mauna Kea observatories is greater than that from the Hubble Space Telescope or the European Southern Telescope.”

With all of these breakthroughs, the mere age of the CDUA, being upwards of 7 years and counting, must make it old, out-moded and out-dated to be considered in these 2017 deliberations.

On the other hand, FOF 266 states: “TMT would [sic] able to provide more detailed information about their [asteroid] orbits, composition, and ultimately the danger they pose. This would aid in predicting the path of the asteroid, and potentially aid in, preventing an asteroid from impacting the Earth.”

However, this preceding paragraph is NOT totally true. What Dr. Hasinger said was: “So the professional telescopes ... are discovering the asteroids [sic] on the first night of observations.... Then the amateur astronomers around the world are following up on the objects. And they are actually extremely important to pin down the orbit ....They [TMT-class telescopes] are not specifically designed to look for asteroids [sic] .... Usually the big telescopes are not the ones that find the asteroids [sic].

**Tr. October 27, 2016, Vol. 5, p.71-72**

### **I. TMT PROJECT CONSTRUCTION ACTIVITIES. FOF 279-283**

### **J. EDUCATIONAL AND EMPLOYMENT OPPORTUNITIES**

#### **2. Native Hawaiian and Modern Astronomy FOF 291-296**

## CONCLUSION

I hereby submit these exceptions in response to the filings of THE UNIVERSITY OF HAWAI'I AT HILO AND TMT INTERNATIONAL OBSERVATORY, LLC'S JOINT (PROPOSED) FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER filed on May 30, 2017.

DATED: June 13, 2017  
at Kamuela, Hawai'i Island  
so-called "State of Hawaii"

Respectfully submitted,

---

Clarence Kukauakahi Ching

## CERTIFICATE OF SERVICE

I hereby certify that on this day a copy of CLARENCE KUKAUAKAHI CHING'S RESPONSES TO THE UNIVERSITY OF HAWAII AT HILO'S AND TMT INTERNATIONAL OBSERVATORY, LLC'S JOINT (PROPOSED) FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER, was served on the following parties by email on June 13, 2017:

Michael Cain michael.cain@hawaii.gov,  
Office of Conservation & Coastal Lands dlncr.maunakea@hawaii.gov,  
Uncle Kalani Flores ekflores@hawaiiintel.net, Pua Case puacase@hawaiiintel.net,  
cordylinicolor cordylinicolor@gmail.com, kealiikea kealiikea@yahoo.com,  
Bianca Isaki bianca@kahea.org, Ian Sandison isandison@carlsmith.com,  
tluikwan tluikwan@carlsmith.com, John P. (Pete) Manaut jpm@carlsmith.com,  
Lindsay N. McAneeley lmcaneeley@carlsmith.com, T. Shinyama RShinyama@wik.com,  
douging douging@wik.com, mehana kihoi uhiwai@live.com,  
Kahookahi Kanuha kahookahi@gmail.com, Joseph Camara kualiiic@hotmail.com,  
Isa isa@torkildson.com, njc njc@torkildson.com, leina'ala s leinaala.mauna@gmail.com,  
Maelani Lee maelanilee@yahoo.com, Lanny Sinkin lanny.sinkin@gmail.com,  
akulele akulele@yahoo.com, s.tabbada s.tabbada@hawaiiintel.net,  
tiffniekakalia tiffniekakalia@gmail.com, Glen Kila makakila@gmail.com,  
Brannon Kealoha brannonk@hawaii.edu, hanahanai hanahanai@hawaii.rr.com,  
pohaku7 pohaku7@yahoo.com, Ivy McIntosh 3popoki@gmail.com,  
Kealamakia Jr. mkealama@yahoo.com, Patricia Ikeda peheakeanila@gmail.com,  
Yuklin Aluli yuklin@kailualaw.com, Dexter Kaiama cdexk@hotmail.com,  
Kealoha Pisciotta keokeal1@icloud.com, w\_holi@hotmail.com

and by first class mail on June 13, 2017 to:

1. Dwight J. Vicente 2608 Ainaola Drive Hilo, Hawaiian Kingdom
2. Harry Fergstrom P.O. Box 951 Kurtistown, HI 96760

DATED: June 13, 2017  
Kamuela, HI 96743

---

CLARENCE KUKAUAKAHI CHING