UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Florida Keys National Marine Sanctuary
33 East Quay Road
Key West, FL 33040

MEMORANDUM FOR: FKNMS Public Notice

FROM: Sarah Fangman, Superintendent
Florida Keys National Marine Sanctuary

DATE: December 21, 2020

SUBJECT: Section 106 Consultation for *Atocha* and *Margarita* Expeditions Certification, FKNMS-2020-052 (certification holder: Mr. Kim Fisher, President/CEO Motivation, Inc.).

In accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 USC § 306108), and its implementing regulations (36 CFR Part 800), the purpose of this memorandum is to inform the public about an undertaking by the National Oceanic and Atmospheric Administration's (NOAA) Office of National Marine Sanctuaries (ONMS). ONMS proposes to issue a certification that would authorize surveying, excavation, and recovery of historical resources within federal waters of Florida Keys National Marine Sanctuary (FKNMS or sanctuary) for the project titled: *Nuestra Señora de Atocha* and *Santa Margarita* Expeditions. Similar to permits, certifications allow ONMS to authorize the conduct of otherwise prohibited activities in FKNMS.

Background

ONMS implements comprehensive management of natural and historical resources within the sanctuary by regulating activities affecting the qualities, values, or purposes of resources; and facilitates, to the extent compatible with the primary objective of resource protection, all public and private uses of said resources. Pursuant to section 304(c) of the National Marine Sanctuaries Act (NMSA), any valid lease, permit, license, or right of subsistence use or right of access that is in existence on the date of designation of any national marine sanctuary shall not be terminated by NOAA but is subject to regulation by NOAA consistent with the purposes for which the sanctuary is designated. 16 USC § 1434(c); see also 15 CFR § 922.47.

Description of the Undertaking

ONMS is proposing to issue a certification to Mr. Kim Fisher, President/CEO, Motivation Inc., that would allow him and his organization to continuing searching for and salvaging the historic shipwrecks *Nuestra Señora de Atocha (Atocha)* and *Santa Margarita* (*Margarita*) pursuant to his valid admiralty arrests that predated designation of

FKNMS. Mr. Fisher would be authorized to continue conducting previously permitted activities under this new certification for a one-year period.

This proposed certification would authorize activities directed at the *Atocha* and *Margarita* under a project titled: *Nuestra Señora de Atocha* and *Santa Margarita* Expeditions. The current project is built upon more than 30 years of work by Motivation, Inc., 25 of which were conducted under the expired section 106 *Programmatic Agreement on Historical Resource Management in FKNMS*. The certification would enable the survey, excavation, and recovery operations to continue in specific locations within two admiralty arrest areas for which Mr. Fisher has been granted exclusive salvage rights (*Atocha*: Case No. 75-1416-CIV-ARONAVITZ (KING) and *Margarita*: Case No. 79-1381-CIV-KING; see Figures 1 and 2). These orders predate FKNMS, which was designated on November 16, 1990. At the time of sanctuary designation, ONMS acknowledged these rights of access, subject to regulation by ONMS, in accordance with section 304(c) of the NMSA (16 USC § 1434) and 15 CFR § 922.47. See FKNMS Final Management Plan and Final Environmental Impact Statement, 1997, Vol. II, pg. 99, available at https://floridakeys.noaa.gov/mgmtplans/fmp2.pdf.

The search for the *Atocha* and *Margarita* shipwrecks within the current project area began in 1970 when the late Mr. Melvin Fisher focused his efforts west of the Marquesas Keys. Years of searching led Fisher and his associates to discover the wreckage trails from *Atocha* and *Margarita* as they sank during a hurricane on September 6, 1622. Mr. Melvin Fisher's organization discovered the primary hull deposits of both wrecks in the early 1980s (*Margarita* in 1980, and *Atocha* in 1985) and has been actively searching for and recovering artifacts since that time. These activities have resulted in numerous archaeological reports, as well as conservation and curation of over 200,000 artifacts in the Mel Fisher Maritime Heritage Society and Museum located in Key West, Florida and the Mel Fisher's Treasure Museum in Sebastian, Florida. The shipwrecks represent a preserved glimpse of history and an opportunity to examine and enhance knowledge of life aboard a 17th century Spanish galleon.

Mr. Kim Fisher's research team has used and proposes to continue using a variety of remote sensing survey tools to locate targets that may be artifacts buried around the primary hull deposits and along each vessels' wreckage trails. These tools include sidescan sonar, sub-bottom profilers, magnetometers, and metal detectors that would be operated by divers and mounted on hybrid autonomous underwater vehicles and remotely operated vehicles. Temporary datum markers and measuring tapes would also be placed on the seabed, and photographs and video would be used to document anomalies and artifacts.

Having located all of the shipwreck artifacts visible on the seafloor in earlier years, Motivation, Inc. has employed and proposes to continue using a variety of sediment movement and removal tools to investigate remote sensing targets. Sediment conditions vary between the shipwreck sites. Motivation, Inc. proposes to move sediment to reach artifacts through the use of airlift dredges (4-12" diameter), suction dredges (3-6"

diameter), water jets, and most frequently, through prop-wash deflectors. Mr. Fisher proposes to use spuds and/or jack-up rigs to support these activities.

Motivation, Inc.'s policies call for immediate recovery of singular or scattered artifacts found along the wreckage trail. Articulated wreckage or artifact concentrations are proposed to be left *in situ* (in place) for further examination and mapping by the company's archaeologist, Mr. James Sinclair, before recovery. All excavations and artifact recoveries would be tracked through Motivation, Inc.'s computerized geographic information system (GIS). This tool allows Mr. Sinclair to interpret the findings based upon the archaeological research model known as the "Galleon Matrix." This model assigns activity areas to parts of a Spanish galleon, which in turn would indicate specific human behaviors. The "Matrix" concept acts as a springboard from which the scattered remains of the wrecks can be interpreted and middle range anthropological theories can be approached. Using GIS to precisely map each artifact that is discovered and filtering this through the "Galleon Matrix" process allows researchers a means of observing past cultural behaviors. Analysis of the finding using the model would identify past cultural behaviors and shipboard social dynamics that would contribute to the history of the 1622 fleet.

Since the early 1990s, Motivation, Inc. has been a separate entity from the Mel Fisher Maritime Heritage Society and Museum (Society), with the Society not receiving financial support from ongoing salvage activities. Motivation, Inc. supports its efforts through investors who finance company operations in exchange for artifacts recovered from the shipwrecks. Motivation, Inc. maintains a website through which the company disseminates the results of its efforts. The website's research pages (https://www.melfisher.com/MOBILE/site/Research.html) contain profiles of artifacts discovered. The company's artifact database contains approximately 204,000 records for items recovered from the *Atocha* and *Margarita* as well as other shipwreck sites. Information about the *Atocha* and *Margarita* and artifacts from these sites have been the subject of numerous museum exhibits at a variety of institutions beyond the Society.

Description of the Area of Potential Effects (APE)

The primary project area and therefore the area of potential effects is approximately 27 miles west of Key West in federal waters of the sanctuary. Both *Atocha* and *Margarita* shipwreck sites lie within Hawk Channel and an area known as the "Quicksands" west and south of the Marquesas Keys (see Figure 1) in depths that range from 20 to 60 feet. The proposed certification would only authorize primary project area activities in the sanctuary's federal waters. Within the *Atocha* and *Margarita* areas, the certification holder would be authorized to survey, excavate, and recover artifacts associated with *Atocha* and *Margarita*. No other historical resources in these areas would be authorized for disturbance.

The APE for the proposed certification is a smaller area located within the *Atocha* and *Margarita* admiralty arrest areas, which are illustrated in Figure 1 below. While the admiralty arrest areas overlap Florida's sovereign submerged lands, ONMS' proposed

certification would not authorize the certification holder to conduct activities on Florida's submerged lands in the primary project area.

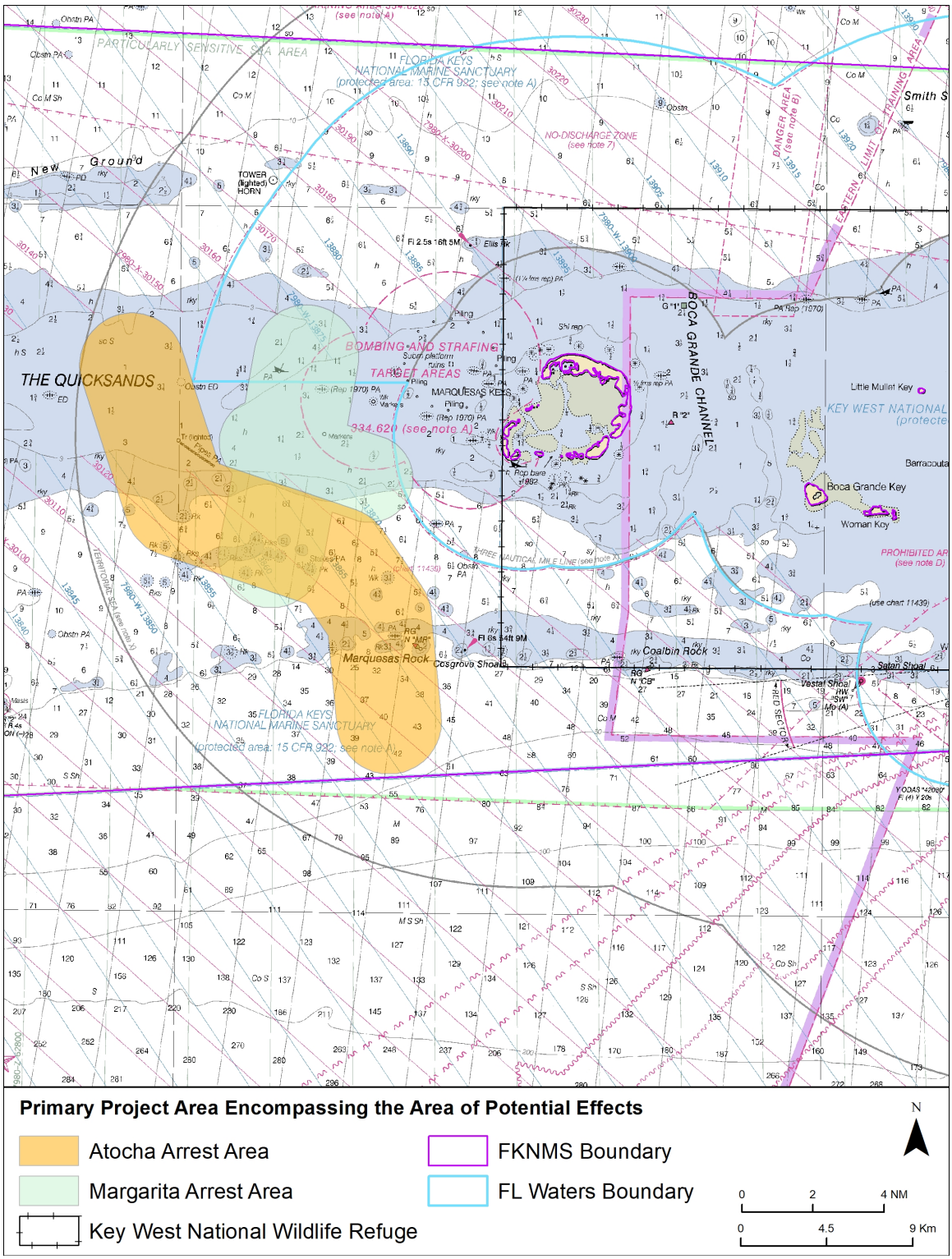


Figure 1. Proposed primary project area.

In addition to the APE for Motivation, Inc.'s primary project area, a secondary APE is proposed by ONMS to allow the certification holder to conduct tethered equipment testing. This area is 500 feet in diameter and is located near Key West adjacent to Stock Island inshore of Middle Sambo Reef within State of Florida waters of FKNMS (see Figure 2). Proposed certification conditions would only allow the certification holder to place test objects (such as representative artifacts) on the seafloor to determine if his remote sensing technology can detect them. Certification conditions would require that all test objects be removed following the completion of testing activities.

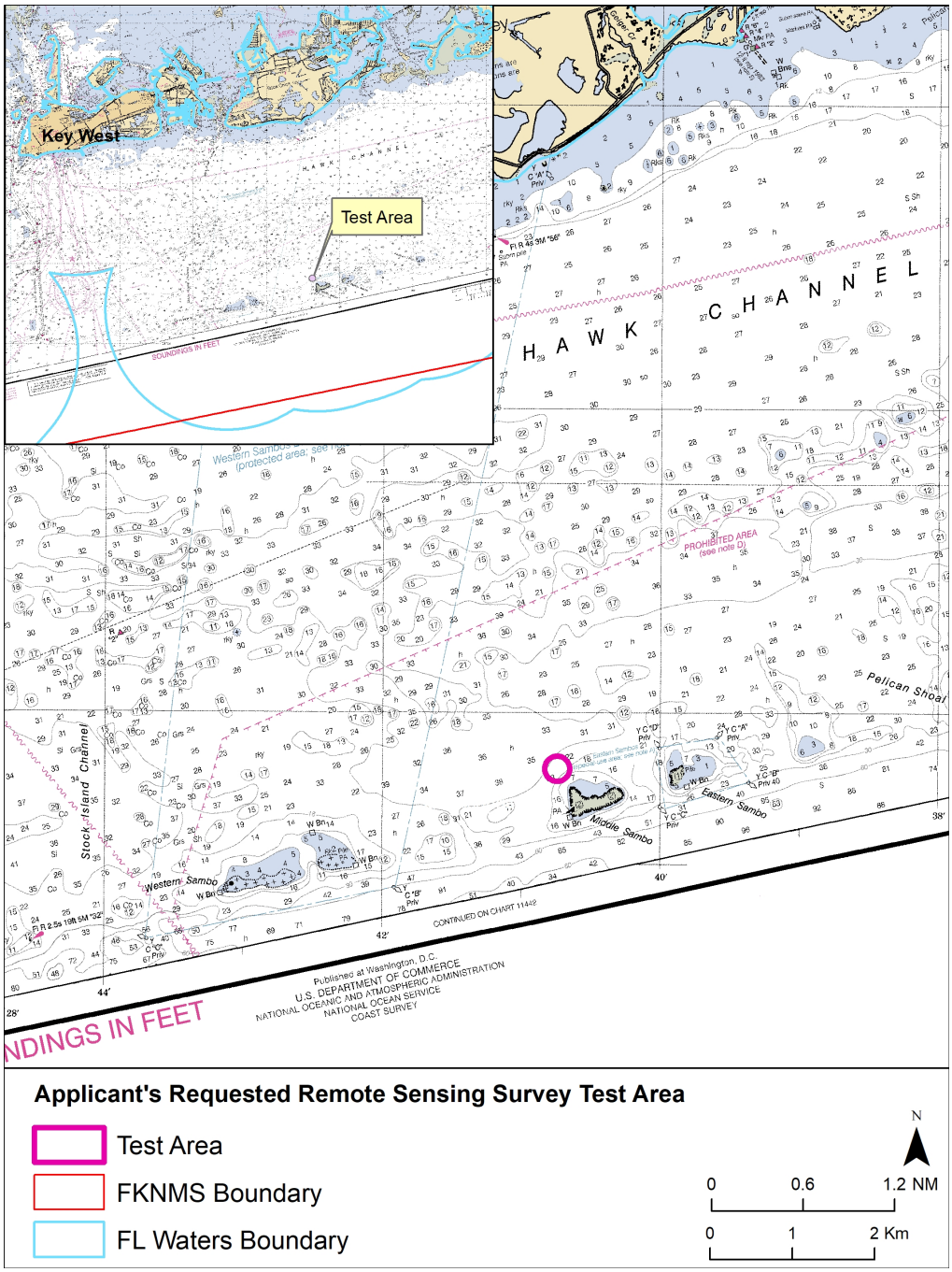


Figure 2. Proposed tethered remote sensing equipment test area.

Steps Taken to Identify Historic Properties

Upon initiating his search for the 1622 fleet, Mr. Melvin Fisher sought out historian Dr. Eugene Lyon, an expert on Spanish archival research. Dr. Lyon narrowed the *Atocha* and *Margarita*'s loss location to an area off Key West. In 1971, Mr. Bob Halloway discovered a large galleon anchor and shipwreck material off the Marquesas Keys. Subsequently, archaeologist Mr. Duncan Mathewson interpreted the artifact deposits as being material of the same period, origin and influence. In 1975, nine bronze cannons were discovered with markings that matched *Atocha's* manifest confirming the

shipwreck's identification. Further historical and archaeological research into the 1622 fleet bolstered the theoretical and methodological research framework that led to the establishment of the artifact trails of both shipwrecks.

Archival research identified that the *Atocha* was relatively intact after the first hurricane (September 6, 1622) and rested on the seabed in 55 feet of water. A second hurricane passed over the area just weeks after the initial sinking, which resulted in the scattering of the shipwreck over nine miles of seafloor. The ruptured and weakened hull of the *Atocha* tore away from the bottom depositing much of its cargo. Without the heavy cargo, the remainder of the *Atocha* became buoyant enough to begin traveling over a long track leaving a scattered trail of material behind. The nearby wreck of the *Margarita* was scattered over seven miles of a narrow corridor from the outer reef and Hawk Channel where the vessel attempted to anchor. The artifact scatter has a similar pattern of dispersal resulting from the first storm only.

Since the 1970s, advances in geographic positioning systems and remote sensing technology have allowed for more precise mapping of artifacts; however, the excavation tools have largely remained the same. Mr. Kim Fisher believes his company has explored approximately 50% of the trail of each shipwreck. Archival research conducted by Mr. Fisher's company and associates suggests that a significant quantity of cannons, ship fittings, cargo, personal effects, and gold, silver, and emeralds remain to be found. The depth, sediment, and limited suitable weather window for operations have been contributing factors to the slow rate of exploration.

In the process of searching for *Atocha* and *Margarita* artifacts, Motivation, Inc. located one additional historic shipwreck within the certification area. The site, characterized by Motivation, Inc. as the hull of a wooden sailing vessel clad with copper sheathing, was partially excavated when initially found. It is located at the northern end of the *Atocha* site in the Quicksands area. Once Motivation, Inc. determined that the site's construction characteristics post-dated those of *Atocha* and *Margarita*, the site was not examined further. The FKNMS archaeologist visited the site location on October 25, 2018 and found no visible evidence of the shipwreck on the surface of the seabed. The site location was covered by sand and seagrasses.

ONMS has reviewed FKNMS historical resources information and Florida Master Site File records with the FKNMS maritime heritage GIS for historical resources located within the equipment test area inshore of Middle Sambo Reef. None of the records indicate that there are historical resources in the test area. Motivation, Inc. has also not reported any historical resources during their previous testing in the area.

Description of Historic Properties in the APE

The known historic properties in the APE include three shipwrecks: *Nuestra Senora de Atocha*, *Santa Margarita*, and an unidentified copper-sheathed sailing vessel. While none of the sites are listed on the National Register of Historic Places, all three are potentially eligible for listing on the National Register.

The *Atocha* and *Margarita* are significant under National Register criteria A and D. Under criterion A, the shipwrecks are significant to the broad patterns of history related to commerce, maritime history, exploration/settlement, and transportation and specifically to the event of the 1622 Spanish fleet loss. Destruction of the Spanish fleet had socioeconomic impacts on the Spanish Empire and Spanish activities in the Florida Keys. Salvage activities brought an extended Spanish presence to the area leading to increased levels of interaction with indigenous peoples in the area. The period of significance stretches from 1622 through the 1640s as the Spanish sought to recover the shipwrecks' valuable cargos. The shipwrecks are believed to be eligible at a state level.

While the shipwrecks have undergone extensive salvage, Motivation, Inc. estimates that 50% of the shipwrecks and associated artifacts remain *in situ* (in place). Thus, the remaining shipwreck remains are eligible for listing under criterion D for the information they may yield to the above categories through archaeological research. Site research conducted thus far has revealed that the artifact scatter pattern resulting from the ships' sinking and subsequent deterioration can be interpreted to reveal information about the event and the people who were involved.

The *Atocha* and *Margarita* archaeological sites meet the following seven aspects of integrity set forth by the National Register of Historic Places evaluation criteria:

1) Location: The shipwrecks are representative of the wrecking events and post-depositional site formation processes.
2) Design: The vessels' design are apparent through their intact intra-site features and artifacts.
3) Setting: The shipwrecks' locations in Hawk Channel and shallow submerged sandbank of the Quicksands reflect the hazardous shoals that caused the losses.
4) Materials: Iron and wood hull construction components reflect the decisions of the shipbuilders and the time period in which they operated.
5) Workmanship: The artifacts reflect the skills of shipwrights and artisans who built the vessels and created the elaborate valuable ornaments carried by the ships' passengers.
6) Feeling: The shipwrecks lie in a remote area of mostly open ocean, with little visible change from the time period in which the vessels operated.
7) Association: The sites likely represent high potential for answering important research questions about maritime activity. Examination of the two vessels offers opportunities to compare and contrast artifact assemblages and site formation processes.

The unidentified copper-sheathed vessel is significant under National Register criterion D as archaeological research at the site will likely reveal important information related to maritime history. As previously described, the site was identified through the activities of Motivation, Inc. and has not been independently verified by ONMS. After only a minimal amount of site disturbance, Motivation, Inc. archaeologist Mr. James Sinclair characterized the site as a vessel with a copper-sheathed hull. This limited characterization indicated a likely use period of 1800 to 1925 for vessels

expected to be operating in the vicinity of the Florida Keys, thus the property is believed to have achieved significance greater than 50 years ago. The shipwreck is believed to be significant under the categories of commerce/trade and maritime transportation. The shipwreck is believed to be eligible at a state level.

The copper-sheathed vessel archaeological site meets the following seven aspects of integrity set forth by the National Register of Historic Places evaluation criteria:

1) Location: It likely rests at its wrecking location or a secondary depositional spot after striking nearby coral reefs.
2) Design: Its design is apparent through its intact intra-site features and likely preserved hull and artifacts as a result of its burial.
3) Setting: The shallow submerged sandbank it is buried in reflects the hazardous shoal that caused its loss.
4) Materials: Its wooden hull construction components and use of copper sheathing reflect the decisions of the shipbuilders and the time period in which it operated.
5) Workmanship: Its reportedly relatively intact wooden hull reflects the skill of the shipwrights who built the vessel. It is also possible that the artifacts preserved at the site may reveal the skills of the mariners who operated the vessel.
6) Feeling: The shipwreck lies in a remote area of mostly open ocean, with little visible change from the time period in which the vessel operated.
7) Association: The site likely represents high potential for answering important research questions about maritime activity. Relatively few shipwrecks studied in the Florida Keys have the same potential for preservation of organic material due to its burial. Most Florida Keys shipwrecks became impaled on the Florida Reef and remained exposed to physical, biological, and cultural processes that resulted in extraction or degradation of site remains. The few archaeologically studied shipwrecks in the Florida Keys excavated from a burial environment have preserved extensive hull remains. One such shipwreck found nearby, the *Henrietta Marie*, which sank in 1700, retained hull structure and stratified artifact assemblages that revealed important information about the Trans-Atlantic slave trade.

Description of Undertaking's Effect on Historic Properties

As proposed, the certification issued by ONMS to Mr. Kim Fisher would allow his organization to survey, excavate, and recover artifacts from the *Atocha* and *Margarita* shipwrecks. Unless captured by a methodological process, excavation and artifact recovery destroys the archaeological provenience information that can inform about past events. In particular, the prop-wash deflector excavation technique used by Motivation, Inc. has greater potential to destroy archaeological information due to rapid sediment movement without direct diver supervision. Excavation and artifact recovery without archaeological documentation may damage site characteristics and alter those characteristics that qualify it for inclusion in the National Register of Historic Places. The ONMS would condition the certification to ensure archaeological information is captured during excavation, analyzed, and disseminated.

The excavation and artifact recovery activities that would be allowed under the proposed certification have the potential to affect the National Register characteristics of the other known historic property in the APE, the copper-sheathed vessel sailing vessel, and other yet unidentified historic properties. The ONMS would condition the certification to ensure that the copper-sheathed sailing vessel is not affected by the undertaking. Similarly, as yet unidentified historic properties in the APE would be protected from adverse effects by proposed certification conditions.

Criteria of Adverse Effects Found Applicable
In review of 36 CFR § 800.5(a), ONMS has found that the issuance of the certification to Mr. Kim Fisher would result in adverse effects on historic properties. This is because the certification would authorize removal of the *Atocha* and *Margarita* historic properties from its historic location (36 CFR § 800.5(a)(2)(iii)) and cause changes to the character of the property's use or of physical features within the property's setting that contribute to its historic significance (36 CFR § 800.5(a)(2)(iv)).

Certification Conditions to Avoid, Minimize, or Mitigate Adverse Effects
While there may be adverse effects on historic properties as defined by 36 CFR § 800.5(a), the properties being affected (the *Atocha* and *Margarita* shipwrecks) have been extensively surveyed and researched and, when applicable, recovered, conserved and exhibited in a manner that documents their archaeological and historical significance. Conditioning the proposed certification would ensure that future work is carried out with similar results.

ONMS would require the certification holder to provide thorough reports meeting the standards set forth in Florida Administrative Code Chapter 1A-46, Archaeological and Historical Report Standards and Guidelines, to document the history of the wreck sites, research methodologies employed, the results of survey and excavation activities, and location and anthropological significance of artifacts located and recovered. Reports submitted to ONMS would be required to contain Florida Master Site File survey log and site forms. Certification conditions would require that report copies (with redacted sensitive site information) be made available on Motivation, Inc.'s website. Notice of the dissemination of this information would be made to the State Historic Preservation Officer at the State of Florida's Division of Historical Resources.
The potential for damaging buried archaeological resources while excavating with a prop-wash deflector would be addressed by a certification condition that limits the vessel engine RPM, thus slowing the rate of excavation. The proposed certification condition prohibits the use of engine speeds greater than 1200 RPMs. Motivation, Inc. would require its operators to check excavations in consolidated mud every half foot of excavation.

The proposed certification would require that a qualified underwater archaeologist conduct or oversee excavations and artifact recoveries. All artifacts would be mapped using a project GIS, tagged, and logged on a daily activity sheet. The recovery of any non-*Atocha* or non-*Margarita* archaeological deposits or artifacts within or

outside of the certification area would not be authorized. Finds of non-*Atocha/Margarita* historical resources would be reported to the FKNMS archaeologist. ONMS would also include conditions to ensure that the permittee is only recovering artifacts from *Atocha* and *Margarita*. The FKNMS archaeologist would review all artifacts recovered by the certification holder prior to assignment of title through adjudication by the U.S. District Court for the Southern District of Florida. In addition, the ONMS is proposing to add a condition specifying a no-disturbance area around the only other sanctuary historical resource and potential historic property (the copper-sheathed sailing vessel shipwreck) known to lie within the APE.

The certification holder would be required to conserve recovered artifacts at his conservation laboratory under the care of professional conservator Mr. John Corcoran. While most artifacts are ultimately distributed to investors, Motivation, Inc. would retain unique, complex, or very fragile artifacts in the certification holder's personal collections. Some of these artifacts may then be donated by the certification holder to the Mel Fisher Maritime Heritage Society and Museum. Artifacts distributed to investors annually would be recorded in Motivation, Inc.'s artifact database and the company would maintain a record of who receives artifacts during annual investor disbursements such that they can contact artifact owners for access to the artifact at the request of researchers.

The proposed certification would require that Motivation, Inc. supply the FKNMS archaeologist with information about project activities on a quarterly basis. The information would allow the archaeologist to monitor and evaluate the effects of the certification holder's field activities on historic properties. The reporting requirement would also allow the archaeologist to ascertain whether the certification holder is in compliance with the certification's terms and conditions. Review of the reporting information would allow ONMS to determine whether additional conditions may be necessary to further minimize or mitigate adverse effects.

Additional conditions would be added to this certification to ensure that archaeological research and interpretation would be carried out in an effective manner. To determine whether the certification holder's remote sensing efforts are being fully used to guide excavation efforts, the certification holder would be required to provide magnetic/electro-magnetic survey data for ONMS evaluation and that survey methodology would be consistent with the *Florida Division of Historical Resources Performance Standards for Submerged Remote Sensing Surveys* (the Standards). ONMS would require the certification holder to use a GIS configured for a real-world coordinate system to facilitate data sharing between ONMS and the certification holder.

ONMS believes that the issuance of this certification to Mr. Kim Fisher would support continued co-management of historical resources within FKNMS by ONMS and the State of Florida. Both shipwrecks are in a remote location that is dynamic, difficult to reach, and which does not have any reasonable public access. Due to environmental conditions, the majority of shipwreck material is buried beneath sand and mud. While operating under previous FKNMS permits, Motivation, Inc. has extensively documented both sites.

Future reports generated by Motivation, Inc. while operating under this proposed certification would contribute to a better understanding of 17th century history.

Summaries of Views of Consulting Parties and the Public
In addition to any public comments received through this notice, ONMS is consulting with the Advisory Council on Historic Preservation and the Florida State Historic Preservation Officer. ONMS has also invited Mr. Kim Fisher and the Seminole Tribe of Florida to participate in this consultation.

Request for Review of Finding or Determination
As noted above, ONMS has found that the issuance of a certification to Mr. Fisher will have adverse effects on historic properties per 36 CFR § 800.5(a). ONMS proposes to include the conditions described above to help avoid, minimize, and mitigate such effects.

ONMS invites members of the public to advise ONMS on historic properties within the APE and express their views on avoiding, minimizing, or mitigating the adverse effects resulting from this undertaking. Public comments must be emailed to FloridaKeys@noaa.gov by January 11, 2021, with the words "Public Comment" in the email subject line. For additional information, please contact Matthew Lawrence, FKNMS Archaeologist, at (305) 434-9383 or Matthew.Lawrence@noaa.gov.