EXHIBIT B

JAMES J. SINCLAIR, MA, RPA

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
TAMPA DIVISION
IN ADMIRALTY

ODYSSEY MARINE EXPLORATION, INC. Plaintiff, v. THE UNIDENTIFIED, SHIPWRECKED VESSEL, if any, its apparel, tackle, appurtenances and cargo located within a five mile radius of the center point coordinates provided to the Court under seal, Defendant; *in rem* and The Kingdom of Spain and the Republic of Peru, Claimants. /	:	CIVIL ACTION Case No: 8:07-CV-00614-SDM-MAP

AFFIDAVIT OF JAMES SINCLAIR
IN SUPPORT OF ODYSSEY MARINE EXPLORATION, INC.'S RESPONSE TO CLAIMANT, SPAIN'S, MOTION TO DISMISS OR FOR SUMMARY JUDGMENT

This AFFIDAVIT is being filed in case 8:07-CV-00614-SDM-MAP.

1. My full name is James J. Sinclair. My legal address is 15 Marlin Drive, St. Augustine, Florida 32080. I am competent to testify as to all facts and issues addressed in the report attached hereto as Exhibit B.

2. I prepared the attached report for Odyssey Marine Exploration Inc. in support of its Response to Claimant, Spain's, Motion to Dismiss or for Summary Judgment in this case.

3. I have personal knowledge regarding the information contained herein and hereby swear that the information is true and accurate to the best of my knowledge.

I CERTIFY THAT THE ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE

James J. Sinclair

STATE OF FLORIDA)
COUNTY OF ST. JOHNS)

The foregoing instrument was acknowledged before me this 12th day of November, 2008, by JAMES J. SINCLAIR, who is personally known by me.

John F. Kavanaugh
Notary Public
My Commission expires: NOV. 21, 2008

NOTARY PUBLIC-STATE OF FLORIDA
John F. Kavanaugh
Commission # DD373684
Expires: NOV. 21, 2008
Bonded Thru Atlantic Bonding Co., Inc.

The *Black Swan*

Archaeological Site Assessment

Performed for

Odyssey Marine Exploration

Prepared By:
James Sinclair, MA
Archaeologist
SeaRex Inc.
15 Marlin Dr.
St Augustine, FL 32080
10/31/08

My name is **James J Sinclair, MA**. I hold a BA in Anthropology from Franklin Pierce University (Rindge, New Hampshire) and a M.A. in Historic Maritime Archaeology from Union Institute and University (Cincinnati, Ohio). I have been active in the fields of maritime archaeology and maritime history for thirty years. My principle area of study has been largely centered on the historic period of 1550-1850 with an emphasis on the maritime material culture of Spain and her colonies. I have also worked extensively on English and French colonial period vessels. My current field projects are in Florida and the Caribbean. I have attached a copy of my curriculum vita to this document (see annex i).

I am the Vice-President of SeaRex Inc. a Cultural Resource Management Firm specializing in private – public management of shipwreck resources in the USA and abroad. Both SeaRex and I are often recognized as being a moderating voice in what has been the often adversarial stance between archaeologists and private sector shipwreck explorers and salvors.

I have worked on Spanish colonial shipwrecks that span most of Spain's tenure as a colonial power in the New World. These include:

The *San Martin, 1618* (Indian River County, FL). The *Nuestra Senora de Atocha, 1622* and *Santa Margarita, 1622*.

I investigated the Site of a Manila Galleon (*Nuestra Senora del Pilar, 1690*) lost off the coast of Guam.

The wrecks of the 1715 Fleet inclusive of *Nuestra Senora de la Regla* (a.k.a. Cabin wreck), *Santo Christo de San Roman* (a.k.a. Corrigans wreck), *Nuestra Senora del Carmen* (a.k.a. Rio Mar wreck), *Nuestra Senora del Rosario* (a.k.a. Sandy Point), *Urca*

de Lima (a.k.a. Wedge wreck), *Nuestra Senora de los Nieves* (a.k.a. Douglas Beach wreck), east coast of Florida.

I assisted in the investigation of the wrecks of the *1733 Fleet* in the Florida Keys.

I co-directed the preliminary investigation on two Revolutionary War shipwrecks in the Mullica River, NJ.

I have surveyed Spanish wrecks in Anguilla (British Territory), Antigua and Barbuda.

I investigated shipwrecks and submerged city structures in St. Eustatius, NA.

I was assistant archaeologist in the archaeological recovery operation on the site of the *La Chameau, 1725* Cape Breton, Nova Scotia.

I am the Principal Investigator of a preliminary archaeological investigation on the "*Fantom Fleet*" (cir. 1814) Prospect, Nova Scotia.

I was the Principle Investigator and first Archaeologist to map the artifact scatter of the *RMS Titanic, 1912* using the MIR manned submersibles on the Titanic Expedition, 2000 sponsored by RMS Titanic Inc.

I was the archaeologist on the Deep Ocean Expeditions project "Atlantic Sands" that located, surveyed and recovered diagnostic objects from an unknown 1810 English Merchantman in 16,300 ft. using the MIR manned submersibles.

I am currently investigating the remains of a Spanish Merchant vessel from the late 16th early to 17th Century off the East Coast of Florida under an agreement with the Florida Bureau of Archaeological Research.

I co-directed archaeological field schools around the United States with the National Center For Maritime Research.

I have additionally given lectures and presentations on shipwrecks in over 150 cities around the USA and Canada.

I am currently on the Board of Directors of the Historic Shipwreck Salvage Policy Council (HSSPC) and the Institute of Maritime Archaeological Conservation (IMAC). I am a past Board Member of the Mel Fisher Maritime Heritage Society (MFMHS) and PROSEA (Professional Shipwreck Explorers Association), and a past member of the Registry of Professional Archaeologists (RPA) and a member of the Explorers Club.

I have been retained by Odyssey Marine Exploration as a consultant to review the photographic evidence along with the declaration of James Delgado, PhD regarding the *Black Swan* site and what it might represent.

I. Identifying shipwreck sites

This document was prepared for Odyssey Marine Exploration, Inc. in response to a Motion to Dismiss filed by Spain the *Black Swan* case. It is a review of video and still photography and of a deepwater site in international waters as well as documents presented to the same court by experts testifying on behalf of the Kingdom of Spain. In reviewing the documentation presented to the United States District Court for the Middle District of Florida, Tampa Division in Admiralty, Case No. 8:07-CV-00614-SDM-MAP by James Delgado, PhD, a number of issues become apparent.

It is rather astounding that Delgado starts his overview of the site with the declaration that "it is evident that the shipwreck involved in this case is the *Nuestra Senora de las Mercedes.*" My claim as an archaeologist with over 30 years of experience is that it is most presumptuous to say, without a shadow of a doubt, given the extant evidence. What we have in hand at this point is nearly 600,000 silver coins a mere five

thousand of which have been cleaned and analyzed. This represents less than 1% of the nearly six hundred thousand silver coins total that have been recovered. This is the extent of hard evidence that Odyssey holds, and really the only reliable material for dating yet recovered.

For the most part the analysis and identification of shipwrecks is a slow and cumulative process. Rarely are we presented with "smoking gun" sort of evidence. From time to time however this does happen. I will review a number of cases where this has occurred.

Nuestra Señora de Atocha, 1622: This is perhaps one of the most famous of Spanish maritime disasters. The eight ships in the fleet of which the *Atocha* was one were lost in a hurricane on September 4th 1622. The Spanish attempted to locate the *Atocha* for a number of years but eventually abandoned the search. The historic shipwreck salvor Mel Fisher took up the search again in the late 1960's at which time there were a number of competing groups searching for the same shipwreck and associated treasure. When Mr. Fisher's group Treasure Salvors, Inc. began to find artifacts they felt were from the Atocha an immediate hue and cry went up from the competing claimants. The claim was that there was no hard evidence (smoking gun) that this was indeed the Atocha. In fact it took the location of a silver bar with markings that matched the manifest of the vessel, and subsequently the weight markings on a bronze cannon, to partially dispel the doubt. In actuality it would take the eventual location of the Primary Cultural Deposit (PCD) of the Atocha and the 900 silver bars associated with this vessel to put the matter completely to rest. Unfortunately, no such manifest matching bullion evidence exists on the *Black Swan* site.

Henrietta Marie, 1700: This English merchant slave ship was discovered in 1972 during the search for the Atocha. Some artifacts were initially recovered but Mel Fisher and his archaeologists, realized this was not a Spanish vessel, or the target vessel, and the search moved on. In the 1980's another group, under an agreement with Treasure Salvors, Inc., undertook further recoveries on the wreck. One of the artifacts found was a ship's bell. On it was the name *"Henrietta Marie"* and the date 1699. This was indeed a "smoking gun" and allowed for the in depth historical and archival studies that have resulted in a more complete story of this ship and a better understanding of the tragic trade in which she was involved.

Whydah Galley, 1717: This is one of the only verified pirate vessels ever to be investigated and recovered by Barry Clifford off Wellfleet, MA in 1984. This site also had "hard evidence" of the vessel's identity in the form of a ship's bell reading "*Whydah Galley 1716.*" Although many iron cannon were found, none were recovered that could, by itself, identify the site as many ships, both Naval and merchant, shared common types of cannon throughout the colonial period.

The 1715 Fleet: The six known sites of the 1715 fleet are perhaps, after the wreck of the Atocha, one of the most famous sets of treasure wrecks ever lost. Victims of a hurricane on July 31, 1715, ten of the eleven vessels that made up the fleet, were lost along with 13 million pesos in treasure. The Spanish salvaged these wrecks for a number of years recovering an amount equal to the royal fifth, the 20% due the crown, before abandoning them to the elements and time. In the late 1950's Kip Wagner and his company Real Eight began to investigate and recover treasures from these wrecks using the new technology of scuba diving. The modern salvage of artifacts and treasures from

these wrecks is still ongoing and thousands of individual artifacts have been recovered. Six sites that belong to this fleet are known on the East coast of Florida and yet after fifty years of recoveries there is still no definitive evidence of which ship is which. Archival documents point to specific vessels in certain locations but there is still much debate as to the certainty of their identifications.

One of the problems with this fleet of ships is that unlike the Atocha in 1622, by 1715, as in the latter part of the 18th and early 19th centuries, there was little in the way of silver bullion being shipped. Most of it had been turned into coinage shipped in wooden crates marked by the owner's insignia for delivery back in Spain. Wood is not a substance with good survivability in ocean environments hence there are no marks to be found. Absent the bullion marks there is still no definitive way to identify each of these historically important wrecks. Additionally, once again we are dealing with iron cannon that by the 18th and early 19th centuries are relatively generic and can be found on both Naval and mercantile vessels. Added to this is the fact that they have, over the years, suffered from a number of factors; ongoing environmental deterioration and anthropogenic agencies have all conspired to make these cannon virtually useless in identification of these wrecks.

In one of the more famous cases a site that has been misidentified is that of the *Juno, 1750* off the coast of Virginia. While the salvor claimed he had found the *Juno*, virtually nothing that was recovered could be identified as coming from that vessel. Not pottery, bullion nor a bell. Images produced with a side scan sonar of the open hull of the *Juno* showed exposed framing timbers. Various experts have examined this imagery and have concluded that the vessel in the image could in ***no way*** be the site of the *Juno* - the

framing is much too small and the vessel and assemblage does not fit what is known about the *Juno*. Subsequently, no further investigation has taken place on this site to either confirm or deny that this is the site of the *Juno*. Interestingly, a whole body of case law may be founded on a faulty identification and assumption.

II. Debris field of the *Black Swan*

What is immediately obvious from a review of the video documentation and the photo-mosaic is that what we are examining is a scattered debris field, the extent of which is spread over an area 300 yards across. The scattering that I observed is consistent with a vessel that has broken up at the surface, descended through the water column and spilled out the cargo and various components onto the seabed. This is not necessarily due to an explosion, or if it is, the evidence from the photographs and video do not in and of themselves prove this. Clearly there is very little in the way of hull structure to be observed. The presence of iron and bronze cannon mostly exposed on the seabed and heavy items such as copper ingots and chest of coins exposed on the surface argues against there being any significant burial of material on the site. Two other deep-water sites I have been involved with exhibit similar characteristics. The first is the RMS *Titanic*, perhaps the best-known shipwreck in the world, which has three known scattered debris fields. One of the debris fields first seen was in the initial examinations of the wreckage by the combined French and American teams that discovered her. This kilometer long scatter lies predominantly between the bow and the stern sections of this great liner. The second scatter appears at the stern section and covers over three football fields (900 feet) in length. Large heavy objects lie on the surface and have not been

buried either from impact nor from subsequent sediment deposition. The third debris field was found even further from the stern and represents significant hull components.

The second deepwater site I was involved with was an English merchant ship that was lost in 1810 and lies in 16,300 feet of water. Again there has been very little in the way of sediment deposition over the 200 year period on this site. Minimal scouring was also evident on this extreme deepwater site and much like the *Black Swan* site, there was very little iron left. This, along with substantial other evidence, supports that *in situ* preservation remains one of the biggest falsehoods of modern underwater archaeology, a theorem espoused by some marine archaeologists who seem not to have a grasp on actual chemical and biological reactions in seawater or corrosion science in general. This lack of preservation is very evident on the *Black Swan* site.

III. Scouring and hull structure

On the *Black Swan* "scouring" as described by Delgado is said to have been occurring from the time of the first deposition of the objects on the bottom. However, there has been little in the way of sediment deposition over the past 204 years. In fact, if significant scouring was occurring one would expect that these heavy objects would have been more, rather than less, exposed. It is also indicative that there was never much in the way of hull structure associated with the *Black Swan* site. One must assume and logic dictates that after the loss of significant amounts of weight (i.e. cannon, anchor, ballast and cargo) the majority of the wooden hull of the vessel would have been relatively buoyant and most would have become a part of the flotsam of the wreckage. Here and there on the photomosaic one can discern fragments of what might be pieces of wooden

structure but they are highly degraded and not in the least an articulated section of structure.

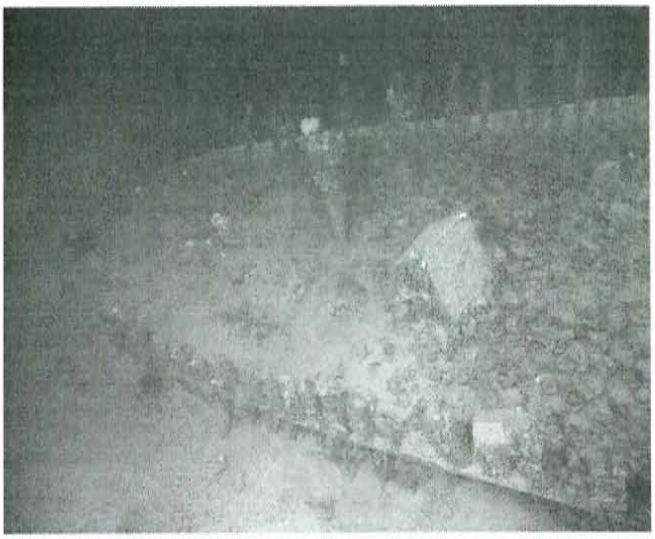
Delgado asserts that remnants of iron fasteners are indicative of where structural pieces may once have been. While this may be the case it does not positively indicate that a large section of articulated hull was ever present. For this to be the case we would expect to see regularity in the distribution of iron fasteners across at least part of the site – which is not the case. The distribution of materials on the *Black Swan* site are very clearly a debris field produced when items from the surface settled on the bottom after the kilometer long fall through the water column and not an intact shipwreck site in the classic sense.

To illustrate, a site on which I worked known as the Coconut wreck in the Atlantic in 2001, we encountered a shipwreck site that is much more what one might expect of a sunken vessel of this general time period. Located in 16,300 feet of water the Atlantic Target was located in 1999 as a by-product of the search for Gus Grissom's space capsule "Liberty Bell 7." While conducting the remote sensing phase of this search an anomaly was discovered that had characteristics of a sunken wooden-hulled vessel. Two years after its discovery an expedition was organized to investigate this site. Working with the two Russian deep-diving submersibles MIR I and MIR II, the wreckage was located at the end of the first day of search. As it turned out this was an English merchant vessel that was involved in trade between various Caribbean islands. This explains the location, between the Bahamas and Bermuda, and the predominant cargo, which was coconuts. This accounts for the other name that this shipwreck is known by, the "Coconut Wreck." The vessel itself was most likely a Bermudan built vessel as the

ship's timbers (two samples taken) were made of cedar. The other surviving timbers were covered with the cargo (coconuts) but the top decking had decomposed leaving the cargo hold open to the elements. The surviving structure of this merchant ship was protected and preserved from wood boring organisms and other biological activity due to the copper sheathing that covered it.

See Attached photos:

Bow of Atlantic Target (note coppering)



Stern of Atlantic Target (note preserved structure)

Artifacts on stern of Atlantic Target (note negligible deposition of sediments in 200 years).

As can be seen from the attached photos the proximity of copper sheathing has the effect of preserving the wooden hull structure. The absence of this phenomenon on the *Black Swan* site is indicative of a scattered debris field and not an intact shipwreck site.

IV. Ballast

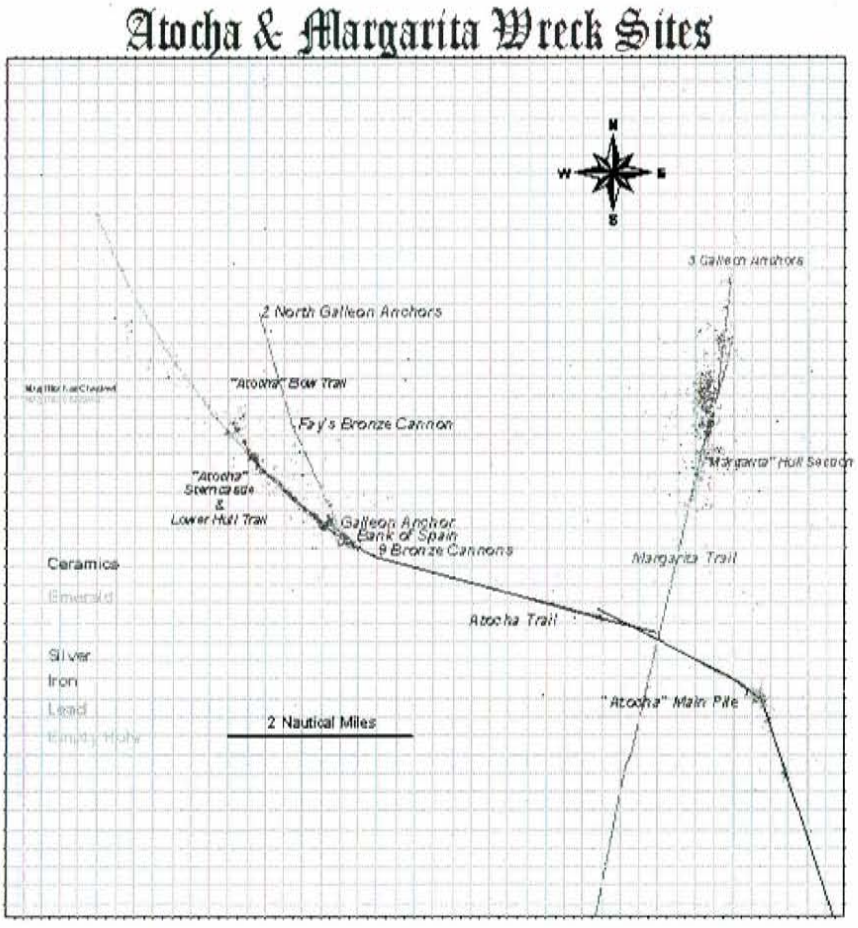
Another indicator of the scattered nature of the *Black Swan* site is the almost total absence of ballast. Ballast in a ship was extremely important in that it functioned to counterweight the superstructure, masts and upper rigging of these sailing vessels. At the time the Spanish were still utilizing stone ballast (as they had for many centuries prior) that may have been either quarried or from natural cobbles. I observed only a small amount of this sort of ballast from the photomosaic or the DVD's I have reviewed. The bottom portions of these vessels were literally loaded with this type of rock and one would expect tons to be evident on the site. The fact that there is such a small amount across the site would indicate that much of the lower hull of the vessel rests in another location some distance from the current area.

V. Pottery

Yet another telling fact that shows this is a scattered debris field is the scarcity of pottery on the site. The Spanish used utilitarian earthenware widely known as "olive jars." Descendants of the amphora of the ancient world, Spain continued to use these venerable jars through the historic period. They were reused over and over again. One of the first archaeologists to study these jars, John Goggin, noting their ubiquitous nature on all Spanish sites, called them the five-gallon gas can of the Spanish Empire. The fact that there are so few examples whole or fragmented, gives further support to my proposition that this is in fact a scatter or debris field of material and not an intact shipwreck site.

VI. *Black Swan* Scatter

Delgado asserts that the pattern seen on the *Black Swan* site could only have been produced as the result of an explosion. This is certainly not the case. As he points out scatter of debris and/or artifacts happens for many reasons. Two different examples serve to illustrate the wrecking processes that produce various scatter patterns. First on the shallow water wreck site of the *Nuestra Señora de Atocha* the result of the 1622 hurricane produced a scatter that extends for over eight miles and quite likely much further:



On the *Atocha* there are at the least two major areas, the Primary Cultural Deposit that included the majority of the ballast, and much of the heavy cargo and the highly scattered

area that appears five mile to the North, with many smaller "dumps" of material between that served to produce the current pattern.

On the *RMS Titanic* that rests in 12,500 feet of water, although not the product of a storm, we see a debris field that stretches over three kilometers. Certainly the two major sections, the crumpled and ripped metal that are hallmarks of this site, might lead one to believe that the *Titanic* had exploded amidships, however, we know that this is not the case.

VII. Site Features

Delgado in #35 of his declaration speaks about the "filtering effect" that took place on the *Black Swan* site. This is a very erudite explanation of the development of the debris field as we see it today. However, it argues against any significant articulated areas of this wreck site and as well it does not conclusively point to an explosion for the sinking of the vessel.

Delgado in #38 of his declaration speaks about the creation of "pedestals" of amalgamated sediment and corrosion products of iron. While this may be true to some extent it certainly argues strongly against any significant burial of material across the site. Some of the heaviest objects that were lost off the *Black Swan* as she broke apart were the cannon and anchor features. These features are at most only partially buried. Their deposition and level of burial are likely a function of the initial impact with the bottom sediments, much like the bow section of the *Titanic* buried itself to a depth of 30 feet as it plowed into the bottom. Sediment movement across the site causing these "pedestals" to be revealed would have the net effect of exposing artifacts rather than further burying them. The fact that single coins and copper and tin ingots are exposed across the site,

plainly lying atop the sediment, speaks to both the lack of subsequent sedimentation and the extremely slow sediment movement across the site. Much of the burial of heavier items can be attributed to impact with the bottom. Hence when a cannon (bronze) is observed as being buried we see the "breech" end mostly buried. These are the heaviest ends of the cannon and would, after a kilometer fall through the water column, be the end to impact first with the sea bottom.

In my opinion, the statement of Delgado - that there are many artifacts at the site that are buried - is wrong. The fact that only the heaviest of objects on the site are partially buried is extremely telling. Remnants of coin chests that weighed over 150 pounds each plainly sit atop the sediment, as do many cannon. Organic remains on this site are very few and would not have had the mass to penetrate the bottom. As far as human remains are concerned this is a non-issue on the majority of shipwreck sites around the world. In all of the investigations on the *RMS Titanic* site, with the loss of over 1,500 people, no human remains have been found. It takes a very unusual environment for human remains to be preserved in the sea as biological activity and chemical processes argue strongly against it. There are exceptions; cold fresh water or a completely anaerobic environment might cause some human remains to survive. Clearly neither of these situations is operative on the *Black Swan* site. Although this event may well have been a site where there was loss of human life, the site itself cannot be considered a "grave site" as the likelihood of there being human remains is virtually nil.

Delgado in #40 of his declaration claims that the answer Odyssey provided to interrogatory # 3 ("the most outstanding characteristic of this site is the actual absence of a vessel") is "inexplicable." This is not the case, for while we have site features and

objects that certainly were once a part of a vessel, there is no "vessel" in the common sense of the word. Again what we are viewing is a debris field from a vessel.

In his review of photographs and video, Delgado makes the case (#88 under the section titled "Hull Remains" pg. 22) that there are substantial hull remains associated with the *Black Swan* site. This is not the case. While there are some remnants of these features, they constitute a very small fraction of the materials/artifacts that appear across the site. Again there are no significant amounts of ballast stone observable on the *Black Swan* site. I agree with Delgado in that what little structural remains that were once associated with the *Black Swan* site have been largely decomposed.

The presence of iron reinforcing elements only emphasizes the rapid deterioration of any biological material that might once have been associated with this site, however the numbers of such items on the site in no way constitutes a significant percentage of the ship.

As to the copper sheathing statements made by Delgado, (#'s 90 –92 pg. 25) - the explosion theory while having some merit can also be explained by the breakup of a vessel on the surface and the subsequent stresses exerted on the materials as they descended through the water column. Many such sections of sheeting are found on wreckage both in shallow waters and at depth. To be able to ascertain from photographic evidence alone the cause of crumpling, bending and/or ripping is unlikely. One need only review photographs of a more modern vessel such as the *Titanic*. The bent, jagged and twisted metal might lead one to assume that the vessel had suffered an explosion when in fact we know this not to be the case. Again, the characteristics of the damaged metallic components from the *Titanic* are a result of the stresses exerted during the break up and

descent to the bottom. To assert that this site or any of the constituent objects in the debris field have suffered from explosive force is quite an extraordinary claim. Even if the objects were ejected in an explosive event, to claim that their present configuration on the seabed is somehow a mirror of that event is unwarranted. The fall through the water column and the filtering effect that Delgado previously mentioned argues against this being the case.

The cannon features that Delgado reviews (97-107 pgs. 26-29) were actually a common sort of armament for naval as well as merchant vessels. The presence of the bronze ordnance alone does not make this automatically a naval vessel. Merchant ships of the time were usually well armed during the time of the Napoleonic conflicts. There were both "Privateers" and "Commerce Raiders" that carried substantial arms. Cannon were often transferred from ship to ship and many cannon that were in use by naval forces would have been identical to those being used aboard merchant ships. Delgado maintains that he is able to discern 17 cannon. This is out of a possible 33-40 guns that could have been carried by the *Nuestra Senora de las Mercedes*. This is approximately half the number on the *Mercedes*. This is yet another counter argument in his position that it is, "evident that the shipwreck in this case is the *Nuestra Senora de las Mercedes*" The photographic and video documentation do not have enough specificity with which to make this sort of assessment.

As far as the cannon shot that Delgado references, specifically AMS-D-07-0013-MY-CB described by Odyssey as a "fragment of a graphitized iron hollow cannon ball" Delgado declares this to be a "shell" and these were only produced in the 18th century. There is a good chance that this was not a shell but a grenade (see annex ii) that would

have been used in close action. These "grenades" extend back to the 15th century with examples being found on the *Vasa* 1628 as well as the merchant slave ship *Henrietta Marie, 1700.* These early anti-personnel weapons were well known in the suspected time period of the *Black Swan*, Napoleon made use of them with an elite corps known as "grenadiers".

In Delgado' s declaration (#109 pg 29) he discusses the "pintle" as being largely limited to ***"navies and large commercial enterprises"*** (emphasis mine) so this particular piece of evidence is not diagnostic of a Naval Vessel.

He also states that the coinage recovered and analyzed to date give both a *terminus post quem* and a *terminus ante quem* for the site. This is true for the less than 1% sample of the collection that has been studied so far. I would submit that a much larger sample would need to be analyzed before any definitive statement such as this can be made. The fact that this is the most abundant and virtually the only category of artifact that can actually be examined cannot be stressed enough. Historical documentation and records are open somewhat to interpretation as is the visual evidence from the photos and video. Not so with the collection of coins. Indeed, the whole assumption (of this being the *Nuestra Señora de las Mercedes*) could be discounted by a single coin dated 1805. In other words, the fractional amount of coins that have been conserved and assessed to date cannot in any way discount finding a later coin in the collection.

In Delgado's declaration under "Other Ship related Features and Artifacts" (#130 pg. 34) regarding a handle of a platter he asserts is of a type which was also recovered from the wreck of the *Nuevo Constante, 1766*. This would be unusual as the styles of

plates and other wares of this type changed through time. If this wreck is the *Nuestra Senora de las Mercedes,* in 1804 this style of platter would have been quite an antique.

VIII. Conclusion

In conclusion, after my review of the imagery from photographs, video and reviewing Delgado's declaration, I believe that to conclude that this wreckage is categorically the remains of the *Nuestra Senora de las Mercedes* is quite a large assumption. While extant documents place the *Mercedes* in the area, the evidence certainly could be that of another vessel. With the sorts of naval and privateering activity and conflicts that were common throughout this period we could be looking at a completely different vessel. These sorts of at-sea conflicts in the area during the Napoleonic period make positive identification from the *available evidence* highly suspect.

The materials appearing on the *Black Swan* site constitute a scatter of material from a shipwreck and not an intact shipwreck such as that of the Coconut wreck or that of the Mardi Gras wreck in the Gulf of Mexico:
http://www.gomr.mms.gov/homepg/regulate/environ/archaeological/introduction.html
The wreckage could have easily been dispersal from the break-up of a ship in a storm versus that of an explosive event. The break-up also serves to explain the tearing and crumpling of the copper sheathing that covered the hull. The filtering of objects and their various trajectories through the water column also preclude definitively ascribing one event over another as to the cause of the sinking. The numbers of observable cannon are only 50% of those known to have been on board the *Mercedes* and cannon were a standard piece of equipment on both naval and merchant vessels of the time.

The coin assemblage is the only collection that is available to study. Due to the fact that less than 1% of the collection has been cleaned and catalogued, no definitive statement can be made regarding the entire collection from such a sample. While those cleaned fall within the limits of what one would expect from the *Mercedes*, the declaration that this can only be the *Nuestra Senora de las Mercedes, 1804* is precipitous and more than a little disingenuous to say the least.

Annex i.

CURRICULUM VITA
James J. Sinclair, MA, RPA
St. Augustine, FL 32080

EDUCATION:

2002-2004	Post Graduate Work towards PhD, Union Institute and University
2002	Master of Arts in Maritime Historic Archaeology, Vermont College and Union Institute and University
1990-1995	Post-grad work in maritime archaeology, Antioch University, Yellow Springs, OH
1980-2008	Continuing education through attendance at professional seminars.
1976-1980	B.A. Anthropology, Cum Laude, Franklin Pierce College, Rindge, NH

AREAS OF SPECIALIZATION:
Maritime Historic Archaeology, Historic Shipwreck Exploration and Archaeology; Artifact Conservation; Education; Museum Design and Display; Professional Speaking, Policy Advisor

PROFESSIONAL HISTORY:

2008	Consultant on Lusitania Project, Ireland JWM Productions
2004-08	Project Archaeologist Le Chemeau Ltd. Nova Scotia, 1725 French Transport and associated wrecks
1983-08	Consultant to Mel Fisher Center Inc. 1715 Fleet Wrecks Consultant to Amelia Research and Recovery
1980-08	Consultant to Motivation Inc. Key West, FL
2001	Chief Archaeologist, Atlantic Sands Expedition, 16000 ft. manned submersible – historic period shipwreck expedition.
2000- 01	Titanic 2000 Expedition Chief Archaeologist
1999-08	Incorporated, SEAREX, Inc. Marine Archaeological Consulting firm.
1995-98	Consultant to McKee Treasure Coins, Cayman Islands
1990-95	Vice President, SEAS, Inc.
1990-92	Site archaeologist and conservator, Nuestra Senora del Pilar y Zaragosa, 1690 Territory of Guam, USA 1989.
1983-90	Atlantic Alliance for Maritime History, Lecturer for field schools in underwater archaeology for sport divers throughout United States

1980-90	Archaeologist/ Conservator, Nuestra Senora de Atocha, 1622 Treasure Salvors Inc. Key West, FL
1988	Consultant, the Flor de la Mar Project, Jakarta, Indonesia Consultant, the Issac Allerton (mid- 19th c. merchant man wrecked near the Saddlebunch Keys, FL)
1982-88	Remote sensing, aerial photogrammetry and archaeological mapping of the 1715 Plate Fleet area. (Included the wrecks of six Spanish galleons.)
1987	Co-director, preliminary survey of late 19th c. shipwreck in the Key Largo National Marine Sanctuary in association with The Alliance for Maritime History Conservation and The National Oceanic and Atmospheric Administration (NOAA)
1987	Consultant, Jupiter Wrecks Inc. for the preliminary mapping of the Spanish vessel San Miguel de Archangel, circa 1685 at Jupiter Inlet, Fl
1985-87	Co-director, archaeological excavation, the Nuestra Senora de Atocha 1622, Chief Conservator, Treasure Salvors Inc. Key West, Fl.
1984-86	Expedition leader, Cedam International Expedition to St. Eustatius N.A. Archaeological mapping, Orangstead Bay
1984-85	Preliminary survey Veracruz Harbor and adjacent waters. (Privately funded project led to the discovery of the U.S. Sommers)
1981-90	Assisted in remote sensing and archaeological mapping of the Santa Margarita and the Nuestra Senora de Atocha, 1622
1984	Mapping and Assessment of environmental conditions on Revolutionary War Shipwrecks, Mullica River, NJ. Field Schools Conducted by the Atlantic Alliance and The State of N.J.
1981	Participated in raising of the Santa Margarita, 1622, hull structure

CONSERVATION AND CURATORIAL EXPERIENCE:

2000-07	Consulting Conservator Mel Fisher Center, 1715 Fleet Wrecks
2000-01	Consulting Conservator RMS Titanic Inc.
1990-95	Chief Conservator and Curator of Collections SEAS Inc. Key West, Fl.
1992-93	Chief Conservator Nuestra Senora del Pilar, 1691: Guam
1982-07	Consulting Conservator for assemblage of materials recovered from the wrecks of the 1715 Plate Fleet for Cobb Coin Co. Inc. Sebastian Fl. Curator and conservator for assemblage of materials from the Henrietta Marie, (1700 English slave ship,) Treasure Salvors Inc. Key West, Fl.

1981-07 Curator and conservator for assemblage of materials recovered from the Nuestra Senora de Atocha and the Santa Margarita, 1622 Treasure Salvors Inc. Key West, Fl

EXHIBITION EXPERIENCE:

2001 Consultant on Titanic Exhibit, Chicago Museum of Science and Industry
1990-95 Designed and implemented traveling exhibit of SEAS Inc. toured approx. 90 Cities throughout the USA. Names and Dates Available upon request.
1986 Children's Museum, Indianapolis, IN
1983 Permanent Exhibit, 200 Greene St., Key West, FL
1982 Martello Museum, Key West Art and Historical Society, Key West, FL
1982 US Customs House, Baltimore MD.
1982 Convention Center, Mallory Square, Key West, FL
1981 Museum of Science, Jacksonville, FL
1981 Washington D.C., National Geographic Society, Explorers Hall
1981 Queens Museum and Chase Manhattan Bank, Flushing Meadows, NY

PUBLIC LECTURES:

2004 Planet Ocean: new paradigms for shipwreck investigation, UI2004
2003 Shipwrecks, Archaeological Treasures of the Deep, North Carolina Museum of Natural History
2002 Hidden Treasures Lecture for the benefit of the Cleveland Clinics, Children's Hospital Center for Autism, in conjunction with the Museum of Science and RMS Titanic Inc.
2002 Lecture at Massachusetts Institute of Technology (MIT), on the Coconut wreck first historic period ship investigated in 16,000fsw
2001 Presented Preliminary Archaeological Report RMS Titanic, Underwater Intervention (UI 2001)
2001 Lecturer Oceanology International Conference of the Americas
2001 Lecturer and instructor, South Florida Museum of Natural History
2001 Guest Lecturer, Maui Ocean Center, HI
1999 Guest Speaker, BIG ARTS, Sanibel, FL
1997-98 Guest Speaker, Mckee Treasure Coins, Cayman Islands
1990-95 Speaker for SEAS Inc. 90 cities around US

1987	Guest Lecturer, University of Kentucky archaeology seminar
1987	Guest Lecturer, University of Hawaii, Marine Options Program
1986	Guest Speaker, Newfound Harbor Marine Institute, Big Pine Key, FL
1986	Guest Speaker, Annual meeting SHA-CUA, Sacramento CA
1985	Workshop, Florida Institute of Technology, Sponsored by the Atlantic Alliance
1985	Guest Speaker, Newfound Harbor Marine Institute, Big Pine Key, FL
1985	Key West Workshop on Underwater Archaeology Sponsored by The Atlantic Alliance
1985	NJ Workshop: Introduction to Underwater Archaeology. Sponsored by The Atlantic Alliance
1984	Motivational Keynote speaker for Scotts Restaurants, Canada. Search for Success Lecture Series.
1984	Guest Speaker, The Atlantic Alliance Conference, N. Carolina

PUBLICATIONS:

"The Coconut Wreck" Published in the proceedings of the 2002 conference on Deep Sea Archaeology,
Massachusetts Institute of Technology (MIT)
Archaeology of the Titanic, Explorers Club Journal, Fall 2001
Just a Coin or Two, thoughts on the conservation of the silver coinage of the Nuestra Senora de Atocha,1622: Institute of Marine Archaeological Conservation Digest, 2000
Preliminary Archaeological Report, RMS Titanic, RMS Titanic Web Site and IMAC Digest
Archaeology of the Titanic Series, Published through RMS Titanic Inc. Web Site.
Treasure Hunters and Archaeologists, A Historical Perspective: Published through Institute of Marine Archaeological Conservation.
Seabed to show case the conservation of metal objects from underwater sites: Published by Seafarers Heritage Journal, 1987
Florida East Coast Shipwreck Project 1982,1983,1984,1999,2000, 2001,2002,2003, 2004, 2005, 2006, : limited publication through State of Florida, Department of Archaeological Research and the Mel Fisher center
Florida East Coast Shipwreck Project, Twenty Year Perspective: to be published

PROFESSIONAL PRESENTATIONS:

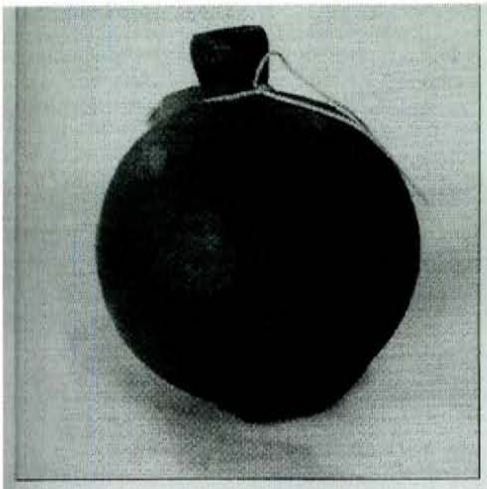
Private Public Partnerships in Underwater Archaeology: Beneath the Sea conference 2003
The Piña Colada wreck: Presented at MIT, Deep-sea Archaeology Conference, 2002
Archaeology and the role of the private sector: Underwater Intervention, 2002
Archaeology and the Titanic: Presented at Oceanology International Conference, 2001
Preliminary archaeological report RMS Titanic: Presented at Underwater Intervention 2001
Swords of the Atocha: Presented at the 1988 SHA-CUA, Reno NV
Silver From the Atocha: a glance at merging Spanish/Indian artistic traditions. Presented at the 1987 SHA-CUA annual meeting, Savanna, Ga.

PROFESIONAL AFFILIATIONS:

Registry of Professional Archaeologists
Board of Directors ShipRex International
Board of Directors, Institute of Marine Archaeological Conservation
Board of Directors Historic Shipwreck Policy Council
Member, American Institute of Conservation
Member, Explorers Club

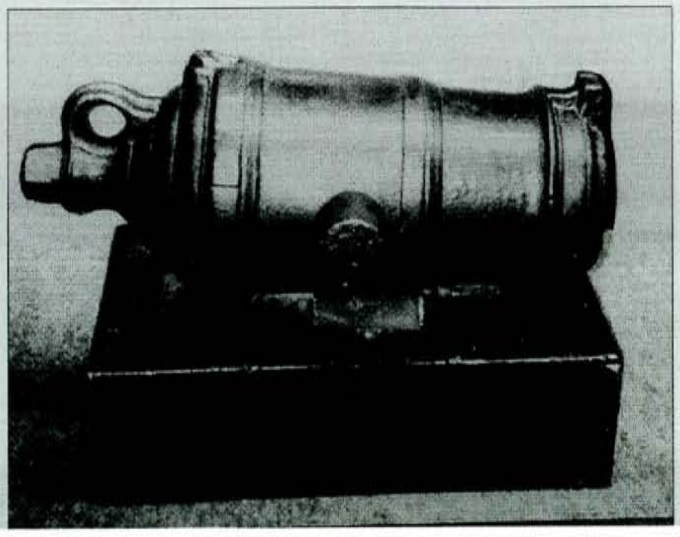
References Provided Upon Request

Annex ii.



One of the more common munitions aboard warships was the hand grenade for close-quarter action. This example was brought up from HMS *Pomone* and still has its original fuse in place. (Museum of Naval Firepower)

During the Napoleonic period the main ship weapon was the smooth-bore gun; rifling was not really adopted until the 1860s. Smooth-bore guns generally fired a solid projectile, or projectiles, although there had been some experimentation with the use of explosive shell. Guns were named according to the weight of solid shot they were designed to fire. Anonymous laboratory notes in the Royal Artillery library indicate that mortar shells were prepared for 6-, 12- and 24-pdr guns on occasion the corresponding sizes being hand grenades, 4⅘-in. and 5.5-in. shell (Caruana, p.282). The main broadside armament of the heavy-gun ships-of-the-line was typically the 32-pdr of approximately 6.4-in. calibre, although similar smaller weapons featured on the gun decks of most ships of war ranging down in size to 3-pdrs of approximately 2.91-in. calibre. The allocation of guns to each deck and the layout of each gun deck had to be carefully worked out so that the ship remained stable and so generally the heavier guns were placed on the lower decks. On a ship-of-the-line such as one of 74 guns the lower deck held the 32-pdrs, the upper deck 18-pdrs or 24-pdrs and the quarterdeck 9-pdrs. Note that ships were classified by the number of 'great guns' aboard but this often did not take account of additional armament, such as carronades, which may have been fitted subsequently. The number of smaller weapons like swivel guns also very rarely gets a mention. Counting all weapons, ships listed as 'seventy-fours' would in fact usually have carried more than 74 guns, though smaller guns and carronades are not included in the accompanying table which sets out typical armaments.



A small bronze swivel gun of the period on a wrought-iron yoke. The yoke is interesting in that it is only designed to be depressed. The gun cannot be elevated above the horizontal and it is therefore probable that this piece was used in a fighting top or fired from a height. (Author's collection)

(Henry, C, Napoleonic Naval Armaments 1792-1815, Osprey Publishing, 2004 pg.5)