

Defendants seek to provide meaningful and helpful data. This data will establish the physical impossibility of destruction by Kane Fisher of 1.63 acres of seagrass based upon testimony of NOAA's own expert, Dr. Hudson and NOAA Exhibits, as will be explained in the next section of this reply. The last section of this memo concerns the assessment costs. NOAA, in making selective use of regulations to justify presumed costs, ignores that it failed to comply with the requirement to invite and allow the Defendants' participation in assessment determinations. NOAA is not entitled to assessment costs.

Video Seagrass Damage - Implosive vs. Explosive - Mailbox Demonstration

The physical impossibility of NOAA's position can be shown by applying basic principles of physics. It also can be simply illustrated by a mailbox demonstration. NOAA wants to avoid a mailbox demonstration assertedly because if the defendants were involved it would be suspect (some type of magical trick?) and because such demonstration should have been requested earlier (and opposed by NOAA). Defendants would suggest the real reason for avoiding a demonstration is the mailboxes on the *Dauntless* will not and cannot "blast" through a seagrass bed. The reason such demonstration is critical and is now needed is predicated upon two factors. First, the testimony is undisputed that the mailboxes on the *Dauntless* would not penetrate the two to three foot thick interwoven mat of *thalassia* rhizome roots that form the bed. Loose sand, rubble, or even mud is a totally different matter. Any injury to seagrass from salvaging would be at the edge of the bed if the sand underneath the roots structure had subsided causing a portion to slump. Indeed, no one testified to the contrary. Second, NOAA's findings, adopted by the Court, necessarily presume and assume not only that the mailboxes are not impeded by seagrass bottom conditions, but that the effect of mailboxes would disintegrate or

vaporize the heavy seagrass root structure so that no evidence of damaged seagrass would remain.

The hyperbole of 2,000 pound bomb caters equating mailbox operations is clever, catchy and quotable. It is also false. It repudiates the basic laws of physics - which may not be a part of NOAA's Coffins Patch regulations, but are still controlling for purposes of determining manifest error. NOAA's hypothesis stems from a fundamental misconception that the implosive low pressure effect of mailboxes is comparable to the explosive high pressure effect of bombs.

This error was perhaps best manifested in the testimony of Dr. Henry Hudson who led a team to measure and video record seagrass damage and depressions or holes where Kane Fisher was believed to have worked just a few weeks earlier. Dr. Hudson's testimony when considered with the actual operations of the mailbox, proves the damage calculation by Dr. Thorhaug and Dr. Wanless and disproves the calculations by Dr. Zieman and the McIntosh report. The Dr. Hudson video tracks of the depressions were mapped by Dr. Wanless, which enabled the video viewer to determine when the picture of thalassia seagrass damage in the depression is the same seagrass bed except for being taken at a different angle. Any portion of the seagrass bed that would have slumped off, fallen off, or edges that had been undercut by removal of sand underlying the root mass would be visible at the side of the depression or in the bottom of the depression. While the depressions had accumulations of loose leaves or blades (which naturally occur from seagrass), there were few chunks or bales or edge clumps videoed. There had been no intervening storms between Kane's operation and Dr. Hudson's inspection. Any chunks of heavy dense root mass caused by Kane's operation would be present, apparent, visible and videoed. This total area of seagrass shown by the video to have been loosened, slumped,

clumped or otherwise effected visible injury appears less than a few hundred square feet, not 70,000 plus feet claimed by NOAA.

Dr. Hudson was asked, where is all the seagrass? His explanation expressly relied on the explosive bomb or blown up fallacy:

"I thought we discussed that yesterday, sir. It is impossible to -- the seagrass was destroyed by the effect of the mailbox device, and the evidence is clearly in the video that the seagrass was destroyed, and parts of that seagrass is there." (Page 20, lines 14-18)

"So when you have an explosion from a bomb, you don't have a picture left of the house. You have a picture left of the hole and what remains of that house around the perimeter of the hole." (Page 20, lines 19-22).

"...you could see the severity of the blast (Page 205, part line 25) effect from the excavation. Undercut, large pieces of grass ripped out, fallen down." (Page 206, lines 1 & 2)

Again, large chunks of seagrass that have been ripped out and thrown up on the rim of the crater. (Page 206, lines 23 - 25).

Neither Dr. Hudson nor Dr. Zieman had observed the actual operations of mailboxes. An important factor. The implosive low pressure effect of the vertical water column would not vaporize the thalassia seagrass bed. Any chunks broken off would remain. The low pressure impact physically is of an entirely different quality from the explosive high pressure effect of a bomb. This is why the mailbox has been used extensively to recover artifacts without damaging the artifacts. This Court witnessed and examined the artifacts recovered by Kane's operation. There are also hundreds of thousands of artifacts on display at various museums, including Mel Fisher's, which have been recovered using mailboxes. When the Government's archaeological expert was asked how he would recover artifacts from Coffins Patch, he said, "By using

mailboxes." The mailbox has been the archaeological tool most used to recover scattered artifacts from shallow wreck sites that have been disturbed by storm and natural events. The force is efficient to dust away loose sand to reveal and recover artifacts without destruction to the artifacts. The very reason the mailbox is used by commercial salvors is because artifacts can be found and recovered without injury. Intact artifacts have far greater value which provides significant economic motivation for a salvor to use tools that do not result in harm.

Without Dr. Hudson's house-being-blown-up-theory (i.e. seagrass being vaporized or disintegrated by use of mailboxes), the absence of 70,000 plus square feet of seagrass clumps, etc. from Dr. Hudson's nearly contemporaneous video cannot be explained. If the video had shown clump after clump after clump of seagrass, reasonably accurate measurement calculations and projections could have been made. As stated, if in fact, Kane Fisher had caused damage to seagrass beds, the chunks, clumps, edges, etc. would have been depicted. It would not have disappeared or vanished. The videos do show a few clumps, a couple of bales and some slumping, which, whether caused naturally or by Kane Fisher, should set the parameters of any provable injury. The videos show less than 5% of the claimed 70,000 square feet. These videos are the best evidence of the damage and this evidence totally disproves NOAA's estimate. NOAA, of course, does not want to make projections of what can be found and was found, it wants to make projections on what cannot be found. The other 95% of the claimed area of seagrass damaged did not disappear, it never existed and was never shown to have existed. This is the manifest injustice that under these exceptional circumstances both warrant and require a new trial.

The mailboxes of the *Dauntless* are approximately 42" in diameter. The prop wash is

very low pressure deflected downward by the elbow-shaped equipment. The prop wash must pass through existing water and counter existing water currents which slows its effect. The downward thrust utilizes principles of gravity to overcome the resistance of the water through which it must pass. The volume of the downward water column by the prop deflectors passing through the mailbox can be calculated in terms of speed, and can be calculated in terms of gallons or cubic feet per minute and can be calculated in terms of pounds of pressure per square inch. The physical effect of a bomb explosion is radically different from the mailbox. The explosive force expands outwardly from a common nucleus at a rate of speed as measured in terms of a thousandth of a second at the center point with enormous pressure per square inch. Mailboxes have uncovered intact olive jars and numerous fragile pieces as noted. Bombs kill fish and destroy olive jars, and could blow up seagrass beds. Mailboxes cannot and do not.

The Defendants have requested an expert to view a mailbox in operation and to prepare a preliminary report of its operation particularly in reference to pressure and force exerted. The report is attached as Exhibit A. A common illustration of the effect of water on pressure would be a Jacuzzi jet after the tub or pool is filled with water.

1. Because low pressure of the mailbox will not blast through seagrass beds, it lacks the high explosive pressure necessary to disintegrate the beds. The federal government, of course, is very familiar with bomb explosive forces. See Exhibit B by Geoff Chapman. There is one explanation that is 100% consistent with Dr. Hudson's videos, mailbox operations, the recovery of artifacts, and the law of physics. That explanation is very simple: Kane Fisher was using mailboxes in sandy areas. This is also 100% consistent with all of the aerial photos, as well as Kane Fisher's logs and the testimony of

persons involved in the salvage operation. The 70,000+ square feet of seagrass beds did not disappear - the seagrass damage was the few chunks and only visible in the video.

Defendants request to conduct a demonstration in the presence of government or court-appointed experts. If NOAA will not allow a demonstration in the Sanctuary, Defendants will conduct a demonstration outside the Sanctuary.

Stefen Sykoras' testimony at the Preliminary Injunction hearing (and thus a part of this record) was not challenged by NOAA, but has been almost entirely overlooked or misunderstood. Any doubt that Sykora's prior testimony related to the area where NOAA contends the damage occurred is clarified in the attached affidavit, Exhibit C. The area where Kane Fisher worked in Exhibit 151-D was sandy and had been worked extensively in the past as shown by Sykora's log records attached to his affidavit. Sykora's earlier testimony also proves that the narrow corridor in which the holes are shown were sand prior to 1992 as also depicted on the earlier aerial photos and by the law of records. Sykora's Preliminary Injunction testimony further proved livelihood use by the salvage community. Sykora's testimony also proves the McIntosh Report was based on two false assumptions: (1) That the area where the holes were dug had the same percentage of sand and seagrass as the area chosen by McIntosh for comparison and (2) that mailbox usage was indiscriminately whether bottom conditions were sand or seagrass.

Assessment Costs

The Defendants denied that NOAA was entitled to assessment costs. NOAA did not make a prima facie case for assessment damages. The Defendants did not stipulate the calculation was necessary or reasonable. NOAA relies on selective use of regulation to create a

self-proving presumption argument. NOAA ignores regulations that would have required NOAA to invite the Defendants to participate in the damage assessment.¹ (61 FR 443 Jan. 5, 1996, See also 33 USC 2706 enacted August 18, 1990.) By comparison, Fla. Statute 376.121 (5) (a) 4 assesses damages to impacted mangroves or seagrass at one dollar (\$1.00) per square foot. A difference in \$70,000.00 (State of Florida) as compared with almost \$600,000.00 (NOAA).

If NOAA had allowed the Defendants to participate in Dr. Hudson's survey in accordance with regulations, mutually accessible assessment measurements would have occurred. NOAA cannot pick and choose which regulation apply, but nevertheless, has consistently done so. For example, requiring Fisher to have a permit even though no regulations existed at the time that either authorized or required a permit. The Defendants were well aware that numerous holes had been dug in Coffins Patch. Defendants, however, were not aware of the particular depressions that NOAA claimed had caused damage to seagrass. Indeed, NOAA did not reveal precise

¹ A. General

Coordination among all parties affected by an incident is crucial to an efficient and effective assessment. Coordination, in pre-incident planning and throughout the assessment. Coordination, in pre-incident planning and throughout the assessment, can reduce time until restoration is implemented and ensure that assessment costs are reasonable. More detailed discussion of some aspects of coordination appears in Appendix A at the end of this preamble.

D. Coordination

With Responsible Parties Active and early involvement of responsible parties may eliminate some of the problems trustees have encountered immediately following an incident, such as lack of funding, personnel and equipment. In addition, a joint trustee-responsible party assessment may be more cost-effective and avoid duplicate studies. Thus, the rule requires the trustees to invite the responsible parties to participate in the assessment.

locations of the depressions where NOAA claimed damage had occurred until after Defendants sought sanctions and received a court order for disclosure shortly before the trial commenced in May of this year.

CONCLUSION

Defendants respectfully request that this Court set the Motion for a New Trial and Demonstration for Oral Argument, and further, that the Court grant the Motion for a New Trial as requested by the Defendants.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by Federal Express to **JAMES LOFTON**, U. S. Department of Justice, 1425 New York Avenue, N.W., Washington, D.C. 20005; **CAROLINE M. ZANDER**, 601 Pennsylvania Avenue, N.W., Room 5614, Washington, D.C. 20004, this 7 day of October, 1997.

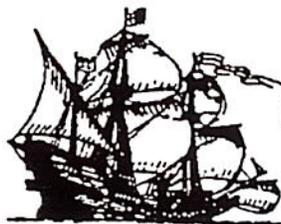
Respectfully submitted,



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PROP WASH EXCAVATION

Since the mid 1960's when the prop wash was first developed by Mel Fisher, it has continued to draw criticism from government bureaucrats who do not understand its archaeological potential and operational characteristics first described almost thirty years ago. (Clausen, 1968) Although government archaeologists have continually insisted they should never be used, mail-boxes have been in fact used on a number of occasions by state archaeologists in Texas, North Carolina and Florida during the 1970's to conduct shipwreck research. (Mathewson, 1992) The Submerged Cultural Resource Unit (SCRU team) from the National Park Service has recommended the use of "blowers" on a shipwreck site in the Pacific. (Lenihan *et al* 1981) More recently its archaeological use has been advocated in Massachusetts for uncovering deep sand overburden on the Whydah site. (Reedy 1991)

If mail-boxes are carefully controlled, they can be used very effectively as an archaeological tool on historic shipwrecks in much the same way archaeologists have been using bull-dozers and back-end loaders on land excavations for many years. (Van Horn; 1986, 1988) With this in mind four test holes were dug on the Herrera site with the 1991 archaeological NCSR field crew. The primary objective of this procedural test was to record the affect of the prop wash on archaeological materials taking into

consideration the following variables: water depth, depth of overburden, blower size, RPM rate, and blower time. This data was recorded throughout the digging process. Observations were carefully made and recorded concerning the degree of bottom sediment dispersed and the impact on different archaeological features. This was compared to the affect of a 4" airlift which was also used for excavation purposes. A video was taken before and after digging operations to adequately evaluate the bottom disturbance. When the site was visited three months later, all signs of the test excavation had been covered over by normal storm and current action. The results of this procedural test were reported in the 1733 Spanish Flota field school report on file with the State.

In the NCSR 1991 Summer Field School test excavations with a mail-box were also conducted on the San Jose. Ron Molinari removed over 8' of sand from the San Jose wooden hull structure to allow the field school participants an opportunity to photograph, video, and map the stern section of the vessel. (See Mathewson 1991)

Prop wash can clearly be used archaeologically in other areas of the Keys in much the same way it already has been demonstrated on the Herrera, San Jose and Capitana sites.



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Marine Archaeologist
Executive Director
6 October 1997

A F F I D A V I T
of
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Purpose: Determination of explosive effects of a 2,000 pound bomb.

In an effort to determine the explosive effects of a 2,000 pound bomb used in testimony by several government officials during trial, I contacted the following individuals in an effort to get a better understanding of the dynamics of this type explosion:

1. Sheriff Rick Roth
Monroe County Sheriff's Department
2. Sergeant Bobby Randolph, Explosives Expert
Monroe County Sheriff's Department
3. Mr. Jamie Higgins, Explosives Expert
U. S. Department of Alcohol, Tobacco and Firearms
4. Ordinance Officer
U. S. Navy Air Station
Boca Chica, Florida
5. Mr. Frank Richards
Toppino Construction
Key West, FL
6. Dr. Henry Feddern, PHD
Taveriner, FL

Although a number of valuable analogies were discussed that dramatically portrayed the differences between the use of "mailbox" technology and the explosive effects of a 2,000 pound bomb, the following data came from a U. S. Naval Airforce "Operational Procedural Manual".

A 2,000 lb. bomb contains 48% filler fragmentation. An explosion of this magnitude, on land, would create a fragmentation pattern causing massive disruption over a diameter of 2,450 feet. A reduction of the fragmentation field of approximately one-third would result due to the impedance of the water's effect on bomb dispersal, therefore, resulting in a fragmentation field with a diameter of 1,547 feet, more than a quarter of a mile in diameter, if exploded under water.

The explosive effect of a single one pound bomb would disintegrate a cinder block at 30

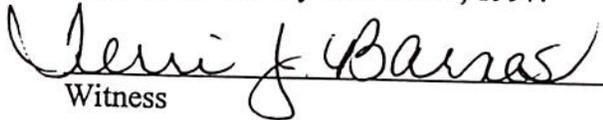
feet.

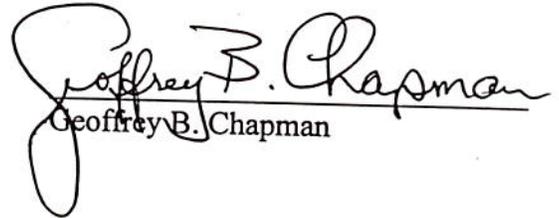
It is clear that a 2,000 pound bomb would wreck havoc on a marine life and destroy any artifacts within the fragmentation field and destroy any economic benefit a salvor hoped to obtain.

If you multiply this explosive effect times the number of holes recorded in Kane Fisher's log books from the *Dauntless*, it is clear that a totally different picture would emerge than has been presented to this Court by the Prosecution.

If the government's witnesses testimony of a 2,000 pound bomb were accurate, there would be photographic evidence of hundreds of acres of wholesale destruction, not the alleged 1.63 acres.

Signed this 7th day of October, 1997.


Witness


Geoffrey B. Chapman

AFFIDAVIT
of
STEFAN SYKORA

- BV: This is an affidavit of Stefan Sykora. Please state your name.
- SS: My name is Stefen Sykora.
- BV: Where do you reside?
- SS: I have lived for the past 20 years in Marathon, FL, here in the Keys.
- BV: Did you previously testify in this case (92-10027-Civ-King), at the 1992 preliminary injunction?
- SS: Yes, I remember being called by Mr. Kane Fisher to the court room in Key West as a witness for the Coffins Patch area of salvaging.
- BV: Would you enumerate your salvage experience in Coffins Patch prior to 1992? How long you've worked there.
- SS: I started my dive shop in the Keys in 1975, in Marathon. I started treasure salvaging in 1976 and I started diving and searching for shipwrecks in Coffins Patch in 1978, '79. In 1983 I started commercially salvaging in Coffins Patch under a, my salvage permit with the Federal Government. We call it a Warrant of Arrest In Rem. In 1985 I applied for a second permit in the same area where it changed because I found a new track of the shipwreck material and I wanted to be more close and precise. My area was the same area, but smaller. In 1986 I had a Federal Court with a different treasure hunter group who tried to say they had the rights to salvage there. In 1986 or '87 the Court's decision was made by Federal Judge Aronovitz in Miami and he ruled because my very poor English language and my bad written log, he believed I know what I'm talking about and where I am, but I cannot have this so-called "grandfather" rights to this area for only the lack of language in my case. Therefore, the Judge ruled he would like to open this special area of Coffins Patch first in the history that he remembers and see if the treasure hunters could live together as competitors like any other businesses in this country and everybody agreed to it. Under this impression I kept going back in 1987, 1988 and 1989. For three years I worked for Coffins Patch for 3 years with maybe 20 different companies and I have those names in my logs. All those companies did different salvage while working in the same line. Under the impression of the Federal Judge's ruling, Mr. Aronovitz, I believed we all had rights to salvage there. That's what he said in his closing statement. Therefore, it never occurred to me there could be something wrong doing it in 1992 when Kane Fisher asked me to help him in Coffins Patch due to my previous experience in Coffins Patch.
- BV: Prior to going there with Kane Fisher in 1992, who was working the area of Coffins Patch? In 1991 and 1992?
- SS: Bobby Jordan was working it the most. That was the time, in 1991, I think, when he found a load of treasure there which he claims that it is all over the Keys, a gold chain and this. He made an announcement on television and the newspaper that he found a lot of treasure in this area. Treasure hunters don't like to say where they find treasure. They are like fishing guys who want to keep their good fishing holes to themselves. Obviously, I can't tell you exactly, but knowing the area I know he was in the Coffins

Patch a couple hundred feet from where I was working. That was the person who salvaged there in 1991.

BV: When were you first contacted by Kane Fisher in reference to Coffins Patch?

SS: He called me at my house in Marathon, sometime in January.

BV: Had he already started working Coffins Patch?

SS: Yes, many people told me there was a big boat, the *Dauntless*, at Coffins Patch. At that time my boat was not capable of going in the ocean so I asked my friends, who is that? They showed me a picture, somebody from a dive shop, showed me a picture and said, "That's the *Dauntless*." I said, "Oh, that's Kane Fisher. That's all right." A couple days later somebody told him my telephone number and he contacted me. I know Kane Fisher was already working there before he contacted me.

BV: And, this was January?

SS: Yes, sometime in January.

BV: After that, what contact did you have with Kane Fisher?

SS: Well, I've know him for a long time. We are friends, but business is business and we are businessmen. Obviously, I asked him what he meant by asking me to show him where to find the treasure? I asked was he going to give me a percentage or pay me and I would go to work for him. Later, he hired me and I started working for him and I worked for him a couple of years after that. But, he asked me simply if I could go see where he was working and if maybe I had a better spot for him where he could find treasure a little bit faster. I didn't know, but I showed him a possibility of where others had looked for treasure. It was not difficult for me. I came in the picture and started working for him.

BV: When you were operating in Coffins Patch, did you maintain log books and records showing where you have dug and where holes have been worked?

SS: In the past, or from 1992?

BV: Prior to 1992 and after 1992.

SS: Well, I have a really nice record from all the way back to 1982 up to somewhere, oh, maybe 1993. I was still diving myself in 1993, no, it was not 1993. It was 1992. But, I don't have a really precise log book of 1992 because I was not a captain, but I have my private record for the purpose of knowing where everybody is finding what to locate the ship wreck. I have that record.

BV: Were you familiar with the areas Kane Fisher worked in 1992?

SS: Yes, sir.

BV: Have you had the opportunity to look at any of the aerial photos taken of Coffins Patch area in June of 1992 and other years?

SS: Yes, I looked them over.

BV: Describe the area in the June 11, 1992 photo where Kane had first worked, the sandy area, your records of prior holes.

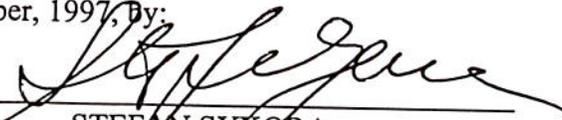
SS: Looking in this picture in my knowledge up is always north. Therefore looking at this light color I am seeing sand going east to west. I can see blow holes in this sandy area. This area I know very well, very well. I know that some grass patches I have name like Italy, Poland, Czechoslovakia. I know that to the right starts at 97.5 on the Loran line. The left corner 15 or 20 feet next to 98.1 Loran line.

BV: Were there any areas that Kane Fisher, to your knowledge, was working where he was digging through seagrass beds?

- SS: No. I want to make myself completely clear. I never saw in my presence in 1992, I never saw Mr. Kane Fisher excavating holes in the grass. I never saw that. Where his buoy was when he asked me the first day, I told him he was in the wrong area. Everybody was here already. We have 1000's of holes in this direction, due west, all the way up there where you can't see. I have that record. I redirected him in the opposite direction when I explained to him I'm in evidence of artifacts found on the bottom. I explained to him the shipwreck must be in the other direction. Because he has a nice big boat, I assumed it would be helpful for me to find treasure and know which way to go in case he stopped working the area. I've worked for 20 different companies and nobody had found the wreck. I come where I had my own mag hit and later when he came to it, it proved to be treasure there. We found a cannon, nice artifacts and coins.
- BV: Where was that location in reference to the aerial photos?
- SS: This is the area when you go to the right, so-called, assuming in the photograph that up is north, therefore, east is to the right. When I look at that photo, that area is not there. It's not in the photograph. It's at least 1000 feet in a different area.
- BV: In reference to the areas that were depicted on the photos and recalling the June 11th photo which appeared to be some holes, do you have personal knowledge of that area through your prior working experience?
- SS: Oh, yes, sir. That entire area going from there west, two thousand more feet, that's what I found in 1983, 1984, 1985.
- BV: Are you familiar with the bottom conditions?
- SS: Yes, sir, absolutely. I mean they call me because I know every rock and every shell which exists in Coffins Patch. What is your question? Do you want to know how high the grass is, how long are the roots, where's the slit, where's the dead coral, how many blades? My personal experience of 20 years diving over 200 wrecks in every ocean. Yes, I'll give you an opinion.
- BV: How many times do you think you were in the water in the area depicted on that aerial photo which purports to show various holes?
- SS: I would hate to say how many thousands of times. Several thousand. I've been 15 to 18 years swimming in the ocean daily for 6, 7 or 8 hours depending on the weather.
- BV: From looking at the aerial map, can you determine where you are in reference to the actual bomb conditions?
- SS: Sir, anytime if there is good visibility and I can see the shore line. If I don't see the shore line, if it's hazy or rainy, and I don't have a GDPS, an ocean will not have clear visibility. When I can't see the bottom, I can't where I am precisely. As long as the visibility is good and the water is clear, and being in the bow of the boat, anytime day time, and you may not believe this, but I am going to tell you the number of the GDPS or loran numbers just going over certain grass areas.
- BV: Could you tell where you were by looking at the aerial photo of June 11th? Can you recognize the bottom pictures? Do you recognize the bottom pictures which were shown on the June 11th photo?
- SS: Yes, sir, definitely the entire photograph. I have a name for the grass patches.
- BV: In refence to the June 11th photo, could you take the areas where you have worked prior salvage activity and digging, could you overlay it on that photo to show where holes had previously been dug?

- SS: Yes, if you have a GDPS or loran numbers graph, and you overlay so I can see them, I can tell you. I may find a day who blew the hole in that picture in that GDPS position or loran position, maybe five years ago. But, looking at this, I don't know where that hole was blown. If the picture was taken in January, the hole was maybe there and no one (unintelligible). Or if the picture was taken two days after the hurricane and a hole was blown before, the hole will be gone. It's impossible.
- BV: But, you do have records showing prior activity in that same track shown on the June 11th photo, Defendants' Exhibit 151-D.
- SS: Yes, sir, a lot of holes. Small holes, bigger holes. Maybe twenty different boats and I can give you the names of the people. Look in my records.
- BV: Are you familiar with the blowers on the *Dauntless*?
- SS: Yes, sir.
- BV: In your opinion and experience and observation, would the blowers dig through a seagrass bed?
- SS: What I know of the *Dauntless* while working on the *Dauntless*, up to 55' feet of water in the Ft. Pierce area in 1993 or 1994, we dusted in 45' of water. The blowers are strong in 25' of water, but I don't believe the *Dauntless* in a 10', 15' or 20' of water over the solid grass. I've never been in a boat with blowers that could blow a hole in solid grass. Not in my experience.
- BV: Are you familiar with the impact of the blower on the bottom and can you describe whether blowers are low pressure, high pressure or what?
- SS: The blowers redirect the water, which is pushed with the prop into a tube of 90 degree, pushes the water down and redirects it against the ocean floor a large amount of water. It's 1000's of gallons of water can go through a 48" diameter pipe in one minute. It's a lot of water going through the water downward and is very low pressure. There's no pressure. Many times while diving 15' to 18' under the blower and I don't even feel it. We walk under the blowers. But, up to maybe 500 to 600 rpms and after the water creates currents, but it isn't the pressure, it's just volume.

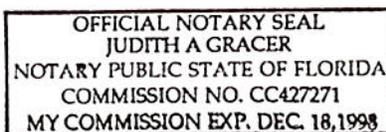
Signed and sealed this 3rd day of October, 1997, by:

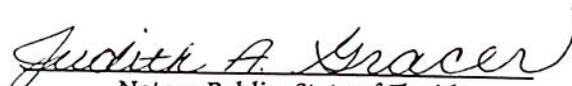


 STEFAN SYKORA

State of Florida }
 County of Monroe }

The foregoing instrument was acknowledged before me this 3rd day of October, 1997 by Stefan Sykora, who is [personally known to me or who has] [produced 3rd. DR. LIC. as identification and who [did [] (did not) take an oath.





 Notary Public, State of Florida

MDM SALVAGE, INC.,
Plaintiff,

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA
KEY WEST DIVISION

-v-

THE UNIDENTIFIED,
WRECKED AND ABANDONED
SAILING VESSEL, etc.,
Defendant,

CONSOLIDATED CASES:
CASE NO. 84-2256-Civ-ARONOVITZ
CASE NO. 85-2702-Civ-ARONOVITZ

-v-

ELIZABETH MASSEY
INVESTMENT CORP.,
Intervening Plaintiff,

MEMORANDUM OPINION CONTAINING
FINDINGS OF FACT AND
CONCLUSIONS OF LAW

-v-

ROBERT JORDAN,
Intervening Plaintiff.

ELIZABETH MASSEY
INVESTMENT CORP.,
Plaintiff,

-v-

THE UNIDENTIFIED,
WRECKED, AND ABANDONED
SAILING VESSEL, etc.,
Defendant,

-v-

MDM SALVAGE, INC.,
Intervening Plaintiff,

-v-

ROBERT JORDAN,
Intervening Plaintiff.

Rival salvors, perhaps more accurately described as modern day treasure hunters, are herein litigating their respective rights to salvage what they believe to be one or more Spanish ship wrecks dating from the 1730s in an area known as "Coffins Patch," lying seaward of Marathon, Florida.

BACKGROUND

MDM Salvage, Inc. (MDM), has claimed a triangular shaped area of the ocean, pursuant to a warrant of arrest originally issued in Case No. 84-2256-Civ-ARONOVITZ (and thereafter amended) in which to conduct exclusive salvage operations in search of defendant vessel. Elizabeth Massey Investment Company (EMI) likewise seeks exclusive salvage rights in a rectangular shaped area of the ocean pursuant to a warrant of arrest issued in Case No. 85-2702-Civ-ARONOVITZ. These two claims, however, overlap significantly, and as to this area, MDM seeks exclusive salvage rights as against all prospective salvors, including EMI. EMI, for its part, seeks to have this Court create a common area in the overlap wherein both parties can salvage, each maintaining an appropriate distance from the other. EMI also seeks exclusive salvage rights as to another sector of the overlap area. Both MDM and EMI are additionally seeking possession, confirmation of title, or alternatively, a liberal salvage award as to recoveries made in their respective areas.

Both MDM's and EMI's claims have been consolidated for trial, after having previously been consolidated for an Emergency Hearing held in this Cause on August 14, 1985 in West Palm Beach, Florida. At that time, this Court, inter alia, stayed all salvaging operations within the respective overlap areas for a thirty day period. Recently, Robert Jordan, a longtime treasure hunter, intervened in both actions. Said intervenor now claims only that neither MDM nor EMI should be granted exclusive salvage rights in any of the respective areas. This Court has conducted a non-jury trial in this matter and has carefully considered the

witnesses' testimony, all exhibits, the arguments of counsel, and being otherwise fully advised in the premises, thereupon enters its Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

The parties herein have not clearly ascertained whether one or two Spanish wrecks lie in the disputed area, although EMI has repeatedly asserted the existence of two wrecks, while MDM has generally referred to only one wreck. What is clear, however, is that the purported existence in the Coffins Patch area of one or more wrecks from the 1733 Spanish Fleet, perhaps the San Fernando or the San Ignacio, has been common knowledge for at least a quarter of a century. See Meylach, *Diving to a Flash of Gold* (Excerpts at Plaintiff Jordan's Exhibits 2 and 6). The cited text describes the destruction of the 1733 Spanish Fleet as follows: "The ships closest to the eye of the hurricane suffered a tremendous battering. One ship, believed to be either the San Fernando or the San Ignacio, was driven across a mile-wide shoal later to be known as 'Coffins Patch.' She burst open at first impact, dropping many of her cannon and anchors....For each yard she moved the ship gave of herself in bits and pieces. Her innards were scattered in a glittering trail a hundred yards wide. She dropped ballast, rock, coins, cannon, and people as she was mauled along. No power could have wrought more total dismemberment." Id. at 25.

Likewise, Captain Jack Steffany, who has cooperated with MDM, testified that he salvaged in the Coffins Patch area along with Mel Fisher of Nuestra Senora de Atocha fame in the early 1960s. And, over the years, a number of other commercial salvors

and recreational divers, including intervening Plaintiff Jordan, have engaged in varying degrees of salvage at Coffins Patch.

No party in this action has engaged in independent historical research as to the respective wreck or wrecks, relying instead on various magazine articles and respected books such as Diving to a Flash of Gold, supra. Nor has any party made a real effort to preserve the archaeological integrity of the purported wreck site, with EMI's consulting archaeologist, who testified in court, having agreed to perform a research design for EMI the day before he testified. Archaeological preservation, on-site photography, and the marking of sites are particularly important in the instant context, as the public interest is compelling in circumstances in which a treasure ship, constituting a window in time provides a unique opportunity to create a historical record of an earlier era. These factors constitute a significant element of entitlement to be considered when exclusive salvage rights are sought. This is not to say that the parties have failed to act in good faith. Indeed, they have so acted and this Court is entirely confident that they will continue to act in the best traditions of maritime salvage in the future. Still, no party in this action has located significant artifacts establishing the existence of an ancient wreck or wrecks in the confines of the areas claimed.

First, Intervening Plaintiff Robert Jordan does not now claim exclusive salvage rights as to any area, as he has only conducted sporadic salvage operations in Coffins Patch over the last two decades. Rather, Jordan seeks to deny exclusive salvage rights to both MDM and EMI, while permitting these and other salvors to continue working in the Coffins Patch area.

Second, EMI has engaged in at least some degree of sustained salvaging activities, as compared to Intervening Plaintiff Jordan. The logs of EMI's sole salvor on site, Stefan Sykora, reveal 29 days of salvage activities in 1985. Sykora testified, however, that he engaged in more salvaging than that which is indicated in his logs insofar as he only recorded his work on a particular day when he made a successful find. The evidence as to the extent of Sykora's salvage activities, however, has been largely inconsistent and undocumented. Sykora engaged in some salvage activity in October of 1984, returned in July of 1985, and made the bulk of his artifact recoveries in October and November of 1985, after the expiration of the 30 day stay of salvaging operations which this Court imposed in August of 1985. MDM has asserted that the Parties agreed to honor the thirty day stay after its expiration--No such agreement has been proven, however, and the stay was not extended until November 20, 1985. Sykora also conducted some salvage operations in the pertinent area in 1983, pursuant to a prior warrant of arrest which was later dismissed for lack of prosecution.¹ Robert Riley, Jr. testified as to EMI's budget and property, but failed to adequately demonstrate that EMI has made a significant commitment of capital and resources to its area of arrest.

Finally, MDM, for its part, has also engaged in some degree of sustained and good faith salvage activity. Although the figures presented to the Court have been inconsistent, MDM seems to have salvaged for 29 days in 1984 and for 45 days in 1985 using a 34 foot vessel, the "Lisa T" as well as a 17 foot runabout. The Captain of the "Lisa T," resigned from MDM in September of 1985, and at this time, MDM's sole active salvor is

Michael Leonard. MDM, like EMI, has not demonstrated a significant and sustained commitment of capital and resources to its area of arrest.

What MDM and EMI have done, however, is to prepare extensive charts and diagrams mapping the coordinates of their finds and thereby presenting scatter patterns of the purported wreck or wrecks. These diagrams have been of assistance to the Court, but they do not in and of themselves demonstrate that any party has, at this time, engaged in a sustained and significant commitment to salvage the purported wreck sites.

CONCLUSIONS OF LAW

This is a case of admiralty and maritime jurisdiction pursuant to 28 U.S.C. §1333. Claims arising out of salvage operations at sea beyond the territorial limits of the United States are within the admiralty jurisdiction of the federal courts. Treasure Salvors Inc., v. The Unidentified, Wrecked, and Abandoned Sailing Vessel, 640 F.2d 560 (5th Cir. 1981) (Treasure Salvors III). The respective claim areas of both MDM and EMI extend into Florida waters. Although this Court's jurisdiction is not impeded as to recoveries in state waters, any final judgment which may eventually be entered as to these areas must specifically exclude a determination as to the State of Florida's ownership of any artifacts recovered in state waters. State of Florida v. Treasure Salvors, Inc., 689 F.2d 1254 (5th Cir. 1982). At such future time, the parties and/or others will have the responsibility of complying with the pertinent Florida law.

The law of finds, a common law doctrine, dictates that the finder of abandoned property must continuously possess or be in

the process of reducing to possession the property which he has found. With regard to the requirement of continuous possession, the law of finds is unforgiving. Henner v. United States, 525 F.Supp. 350, 354 (S.D.N.Y. 1981), citing Eads v. Brazelton, 22 Ark. 491 (1861). If a first finder maintains appropriate possession and control of an identifiable abandoned wreck site, he may acquire the exclusive right to continue recoveries. Treasure Salvors, Inc. v. The Unidentified, Wrecked, and Abandoned Sailing Vessel, 556 F.Supp. 1319 (S.D. Fla. 1983). Thus, in a first finder situation, the law of finds and salvage merge to give the first finder/salvor sole possession of the property. Treasure Salvors III, supra, 640 F.2d at 567.

No salvor who now claims superior salvage rights as to the wreck or wrecks in Coffins Patch claims to be a first finder. As noted, for at least twenty-five years, many salvors have recovered evidence of a wrecked Spanish vessel in Coffins Patch. Distinguished from the law of finds, the law of salvage primarily is concerned, not with title, but with successful recovery and possession of lost property from the oceans and waterways. Salvage contemplates the right to possess property for the purpose of saving it from destruction, damage or loss, and to retain it until proper compensation has been paid. A salvage claim requires proof of three essential elements: (1) a marine peril; (2) service voluntarily rendered and not required as a pre-existing duty; (3) success, wholly or partly, in recovering the imperiled property. Treasure Salvors, Inc. v. The Unidentified, Wrecked, and Abandoned Sailing Vessel, 546 F.Supp. 919, 927 (S.D. Fla. 1981).

In the case at bar, MDM and EMI seek not only a salvage award (which they are entitled to, see infra), but also exclusive rights to salvage in their respective areas. To be sure, if a wreck site and recoveries are brought within the jurisdiction of a Federal Court, the salvor's exclusive right to possess can be protected by enjoining subsequent rival salvors from interfering with the current salvor's efforts. Treasure Salvors III, supra, 640 F.2d at 571. To enjoy the continued right to exclusive possession and protection from interference of rival salvors, a salvor must exercise due diligence and must be capable of actually saving the property. The salvor must intend to reduce the property to physical possession by dealing with the entire wreck site in such a manner as to warn other potential salvors of the claimed area. Cobb Coin v. Unidentified, Wrecked, and Abandoned Sailing Vessel, 525 F.Supp. 186, 204 (S.D. Fla. 1981). One who discovers but does not assiduously undertake to rescue abandoned property may lose his right to uninterrupted salvage operations. Notorious possession is a prerequisite to the creation and maintenance of a salvor's privilege. Cobb Coin, supra, 525 F.Supp. at 204-5.

Despite the good faith and the commendable efforts of the salvors before this Court, their salvage activities, thus far, are not of the scope warranting injunctive relief granting exclusive salvage rights of any kind. Neither party has salvaged the wreck or wrecks in question to such an extent that one or the other should have exclusive rights vis-a-vis themselves or others. Although there have heretofore been warrants of arrest and injunctive relief in this area, it behooves this Court to pause and recognize the magnitude of the

injunctive relief requested herein. The parties are asking this Court to provide them with exclusive salvage rights to various areas of the ocean to search for a vessel or vessels, the possible existence of which in said area, has been common knowledge for twenty-five years. The parties, as noted, have not been actively salvaging the wreck sites for a sufficient number of days, they have not invested sufficient capital in their respective projects, and they have not sought to preserve the archaeological integrity of the area. Nor have the parties exercised dominion or control over the areas claimed. For that matter, no party has established that a wreck has in fact been discovered with any significant containment of recoverable artifacts.

Under the facts and circumstances of this case, the litigants' requests for exclusive salvage rights of any kind, in the overlap area or otherwise, is simply premature. This Court is particularly concerned that these parties are suggesting that they be granted exclusive salvage rights to a shallow water ocean wreck site, in an area as to which no convincing evidence of the near-term ability to salvage the wreck or wrecks in question has been demonstrated. Under the equities of this case, the Court cannot and should not fashion injunctive relief which would necessarily unduly infringe on freedom of navigation and travel on the high seas, as well as the rights of other salvors to work the respective areas.

In this and other contexts, courts have recognized the limits which must be placed on the rights of a salvor to obtain exclusive salvage rights. For instance, in Cobb Coin, supra, the

Court, in considering the salvage rights of one litigant, stated: "While salvage law will permit one whose salvage efforts are continuous and reasonably diligent to work a wrecksite, once discovered, to the exclusion of others....until discovery and subsequent dominion of the site occurs, no one may be restricted from exploring the navigable waters for salvageable sites." 525 F. Supp. at 203. The Court thereupon found the subject salvor's "possession and salvage operations...insufficient to give it the type of right to exclude competing salvors required by federal maritime law." Id. at 204. See also Brady v. S.S.Africa Queen, 179 F.Supp. 321 (E.D. Va. 1960); Eads v. Brazelton, 22 Ark. 499 (1861).

For the foregoing reasons, the claim of any party herein to exclusive salvage rights in any area must be rejected, injunctive relief denied, and the heretofore existing warrants of arrest quashed. This Court is not holding that either MDM or EMI shall not be entitled to renew their applications for warrants of arrest and/or injunctive areas after they have engaged in more sustained salvage activity. Rather, the instant suits are simply premature, and future activity may very well warrant renewal of the pertinent requests for judicial relief.

Salvage Award

Separate and apart from the question of exclusive salvage rights, MDM and EMI have indeed salvaged various artifacts from their respective areas, as evidenced by the reports submitted to this Court, and they are entitled to a liberal salvage award. It has been stated in this Circuit, under circumstances analagous to the case at bar, that salvage operations like this, satisfy the

requisite elements for a salvage award. See, e.g., Cobb Coin v. The Unidentified Wreck, etc., 549 F.Supp. 540, 557 (S.D. Fla. 1982). And, under the rather unusual circumstance of the salvage of ancient wrecks, the salvage award herein "should differ from traditional awards. It should be given in specie because the property saved is uniquely and intrinsically valuable beyond any monetary value." Id. at 561. This Court therefore awards both MDM and EMI all artifacts heretofore recovered by said parties in their respective salvage areas for salvage services rendered. This award does not include those artifacts, if any, recovered in Florida state waters. See supra for discussion of rights of State of Florida.²

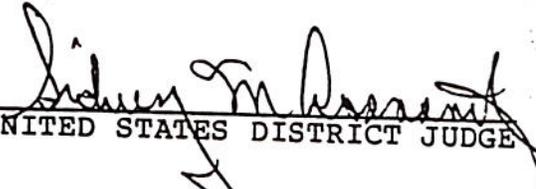
It is thereupon ORDERED AND ADJUDGED as follows:

1. The heretofore existing warrants of arrest in Case No. 84-2256-Civ-ARONOVITZ and Case No. 85-2702-Civ-ARONOVITZ, are hereby QUASHED and further warrants at this time are, hereby, DENIED, without prejudice.
2. The stay of salvage operations which has been in effect since November 20, 1985, is hereby DISSOLVED.
3. Each and every request for injunctive relief in the form of exclusive salvage rights in the overlap area and otherwise is hereby, DENIED, without prejudice to renew when and if appropriate.
4. MDM and EMI shall receive salvage awards, in specie, for salvage services rendered, as set forth above.
5. Both MDM and EMI (as well as other salvors) shall hereafter be permitted to salvage in the areas previously subject to the warrants of arrest which have now been quashed,

but no salvor shall anchor within 100 yards of the site where any other salvor has anchored a vessel so as to salvage adjacent areas. The parties are to exercise prudence and civility in working the area.

6. All parties shall bear their own costs and attorney's fees. If there are any costs due and owing to the United States Marshal for custodial services or otherwise, said costs shall be paid by the party who has incurred them.

DONE AND ORDERED in Chambers at Miami, Florida, this 24 day of March, 1986.


UNITED STATES DISTRICT JUDGE

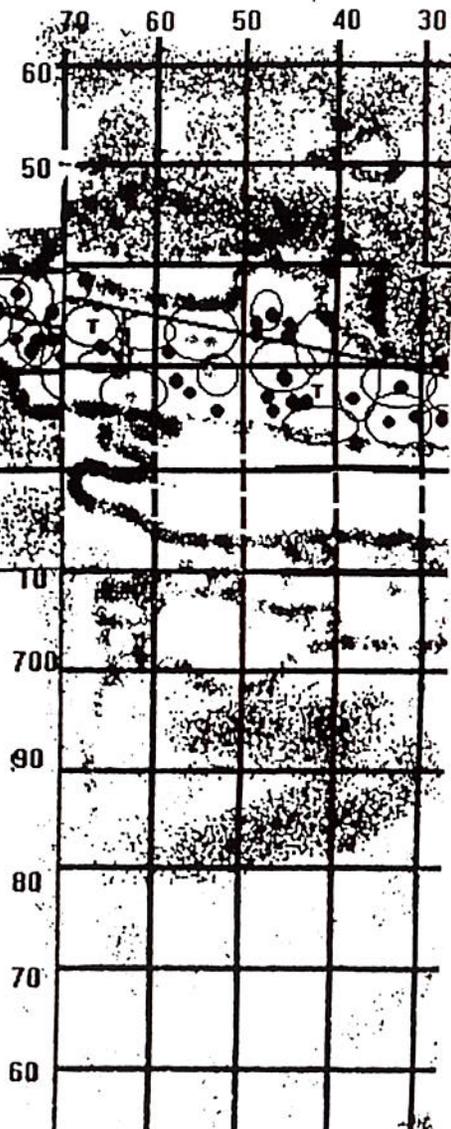
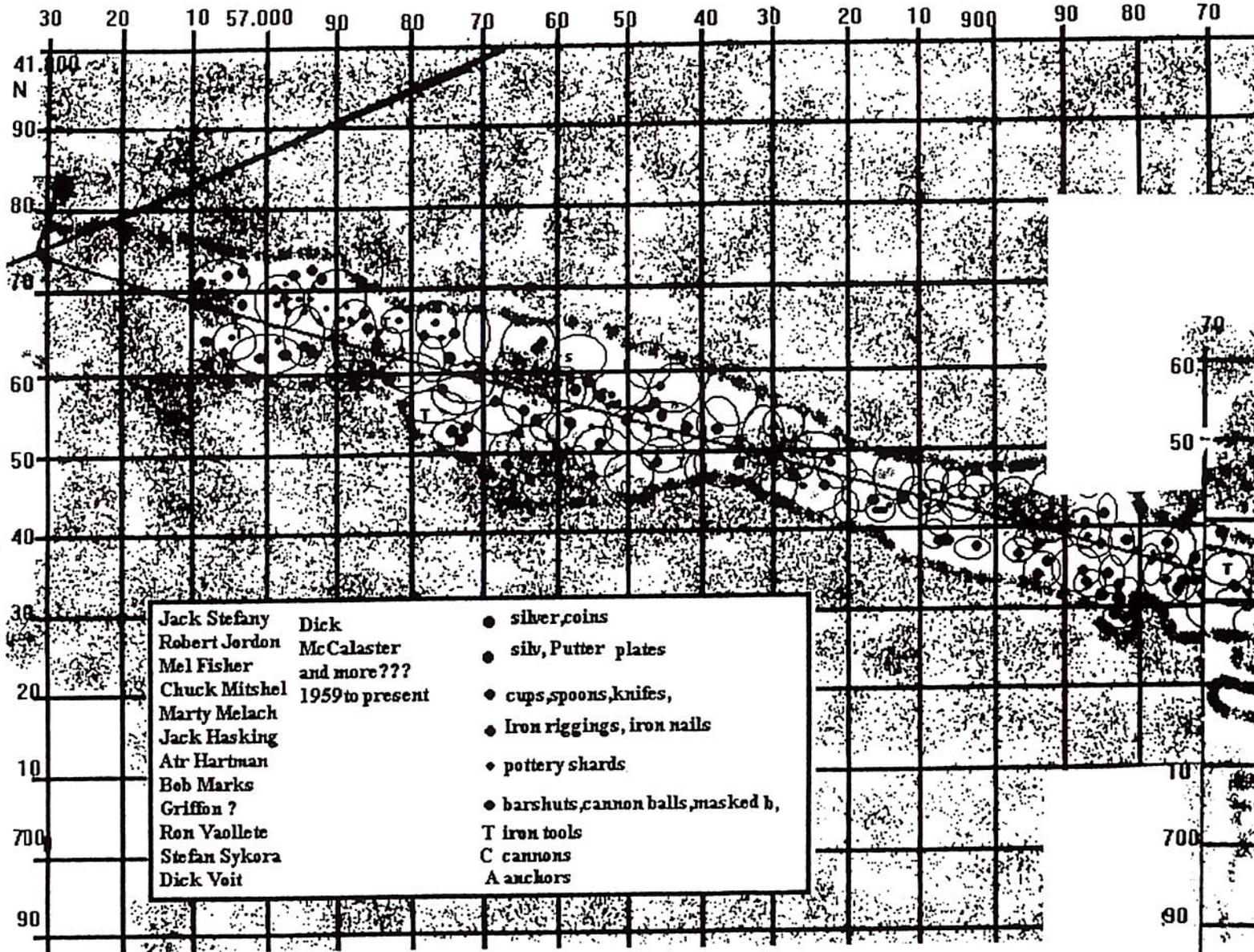
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FOOTNOTES

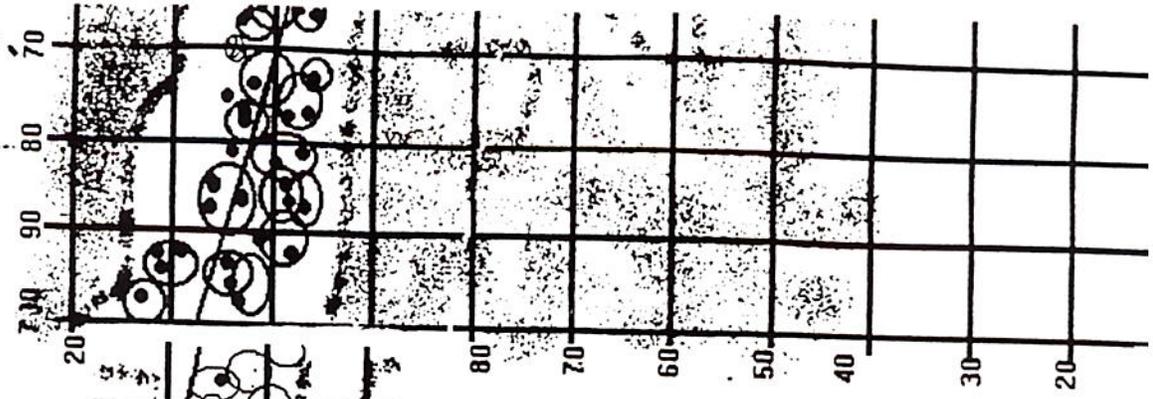
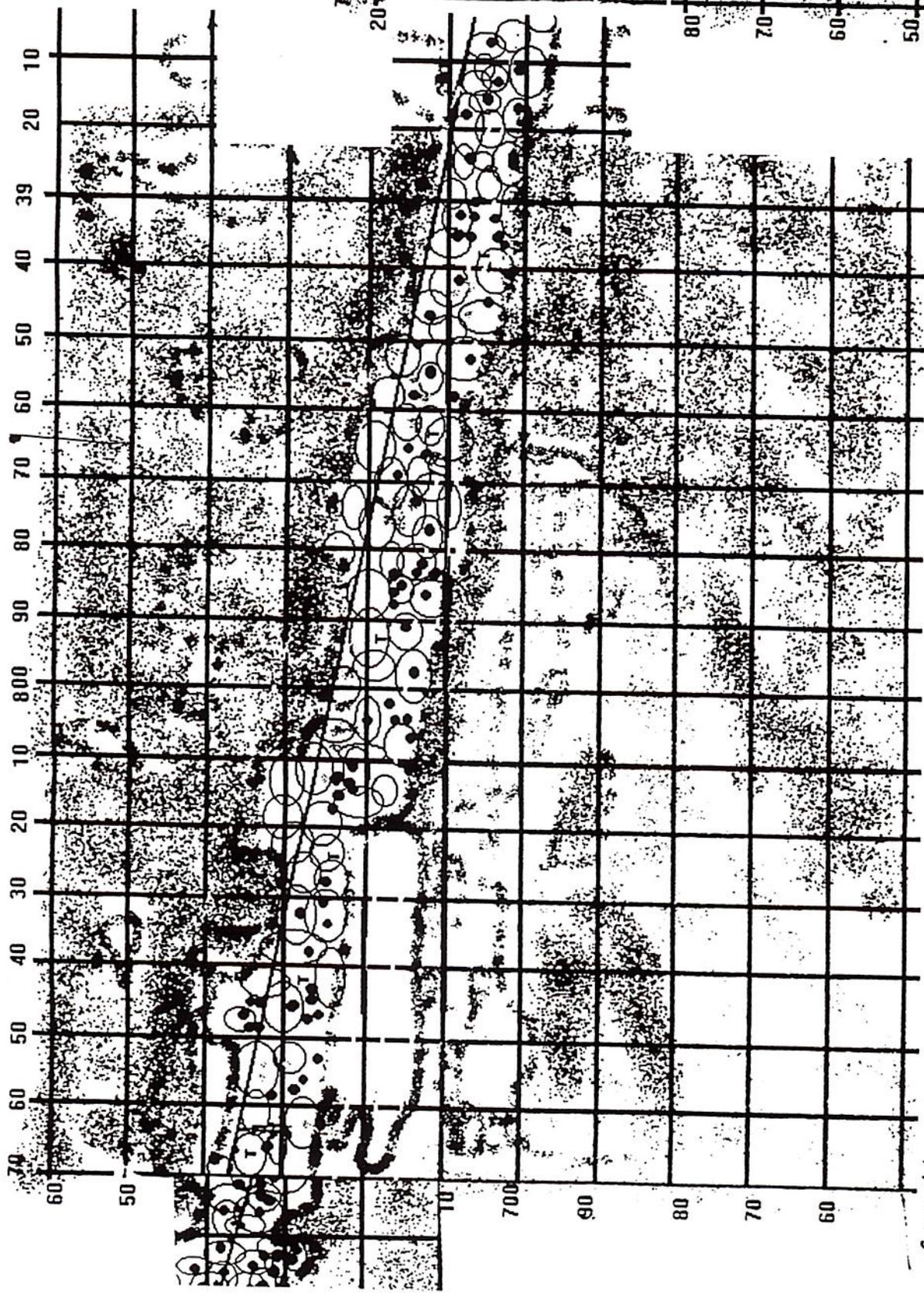
1. EMI has interposed a counterclaim as to the prior warrant of arrest in Case No. 83-122-Civ-HOEVELER. Said case, however, as noted, was dismissed for lack of prosecution. This Counterclaim was not individually addressed at trial, and the Court will deem said counterclaim to be merged with EMI's main cause of action.
2. The salvage awards herein are subject to and conditioned upon the following:
 - a. MDM and EMI, before removing any articles from Court custody, shall file with the District Director of Customs, Miami, Florida, an Entry Summary (Customs Form 7501) and a Pro-Forma Invoice in substantially the same form as described in 19 C.F.R. §141.85 for all the articles and a Continuous Customs Bond (Customs Form 301) written by a Surety authorized to write customs bonds, in an amount set by law, if required by U.S. Customs.
 - b. MDM and EMI shall comply with all customs laws and regulations concerning the entry of merchandise for any future importations of articles when recovered but which have not yet been raised.



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Exhibit C-3

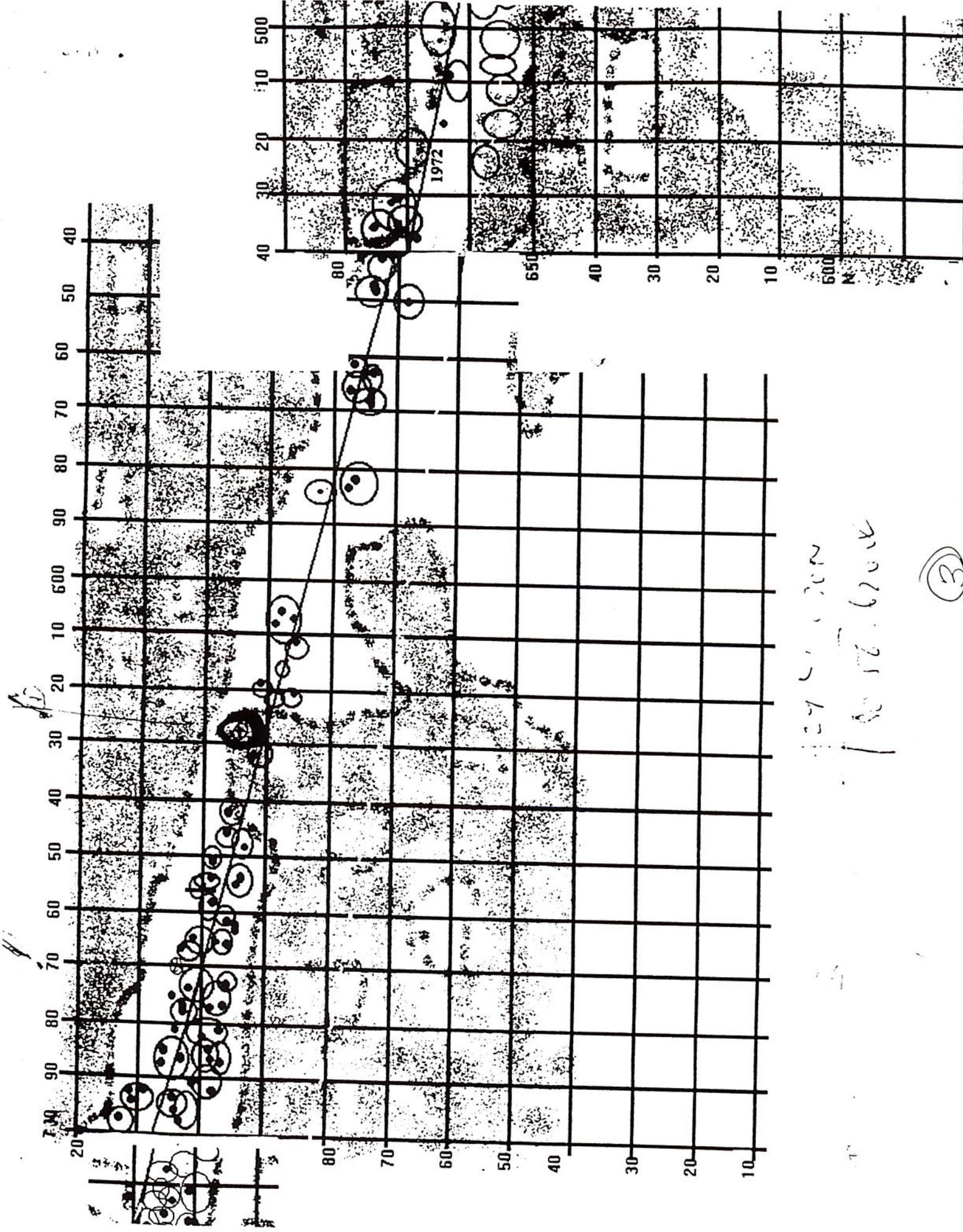
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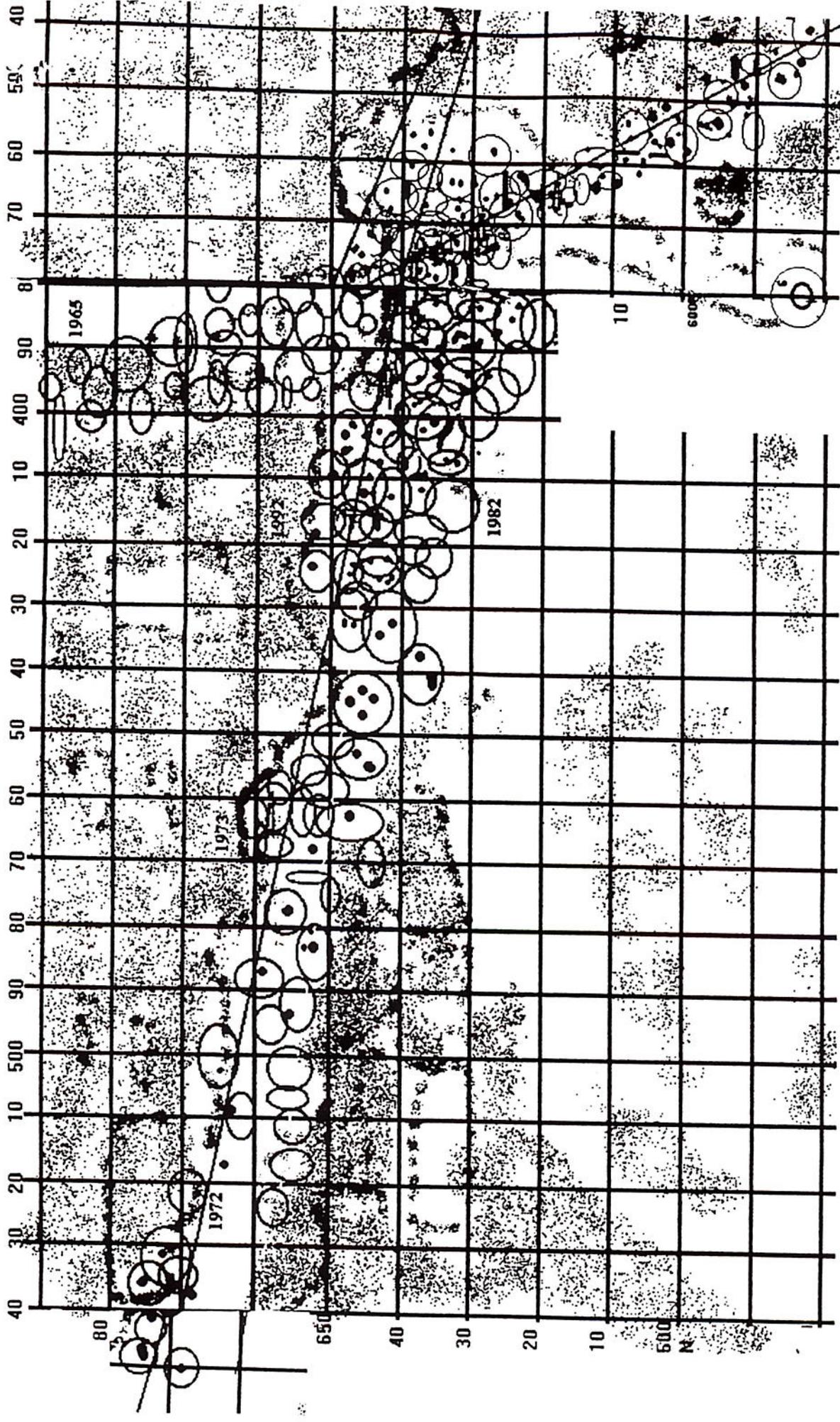
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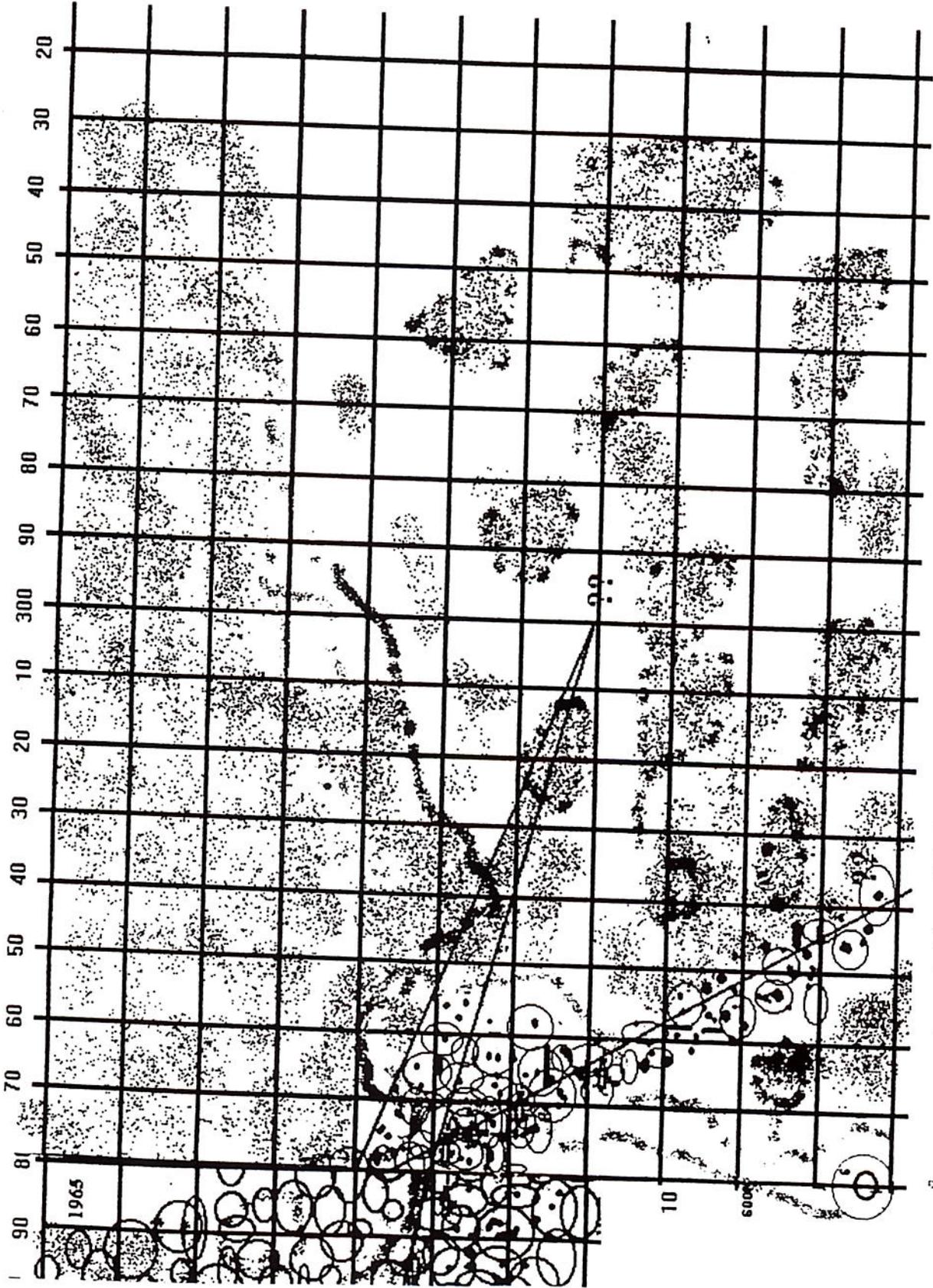
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