

**TOPIC -**

***" STILL INITIAL DRAFT ONLY "***

**SOME RECENT NEW**  
**INFORMATION ON**

**“ THE SINKING OF THE**  
**TITANIC DISASTER OF**  
**APRIL 15, 1912 “**  
**SCIENCE, TECHNOLOGY & SOCIETY**  
**{ “STS” }**

**BY**  
**FRANK J. GADEK, PH.D.**

**NATURALLY, WITH HUMAN EVENTS -  
THERE WILL ALWAYS BE THE UNKNOWN,  
ALONG WITH **DIFFERENT** ACCOUNTS OF  
WHAT HAPPENED & DIFFERENT INTERPRETATIONS  
OF THE DATA AVAILABLE AT A PARTICULAR TIME**

OF COURSE, CAN WE REASONABLY EXPECT  
TO KNOW WITH ANY DEGREE OF ABSOLUTE  
CERTAINTY WHAT REALLY HAPPENED ?

TOO MANY FACTORS USUALLY INVOLVED

HOWEVER, CAN MAKE “EDUCATED / INFORMED”  
STATEMENTS MAKING BEST USE OF DATA  
AVAILABLE AT A PARTICULAR TIME

THIS CAN PROVIDE SOME INSIGHT

IT CAN ALSO HELP TO PREVENT / MITIGATE  
SUCH DISASTERS IN THE FUTURE

HOW MUCH DO YOU REALLY NEED TO KNOW

TO GET THE GENERAL IDEA OF ESSENTIALLY / BASICALLY

WHAT TOOK PLACE

& TO DEVELOP EFFICIENT & EFFECTIVE

“ACTION PLANS” FOR THE FUTURE ?

OVERALL, DUE TO SO MANY COMPLEXITIES & DETAILS  
INVOLVED, IT IS BEST TO DO YOUR OWN RESEARCH  
ON A TOPIC & FORM YOUR OWN INFORMED CONCLUSIONS  
  
THIS PRESENTATION CAN ONLY PROVIDE A VERY BRIEF  
OUTLINE OF MOST OF THE DETAILS INVOLVED

CERTAINLY CONSULTING AND / OR JOINING

TITANIC HISTORICAL SOCIETY

BOX 51053

INDIAN ORCHARD, MA 01151-0053

CAN PROVIDE A WEALTH OF INFORMATION

ALSO

MARK TAYLOR'S TITANIC DISCUSSION MAILING LIST

BESIDES MANY OTHER WEB SITES

NATURALLY, THERE PROBABLY ALWAYS  
WILL BE ENDLESS DISCUSSION, DEBATE,  
CONTROVERSY, INCONSISTENCIES, ETC.  
ABOUT SUCH A SIGNIFICANT DISASTER

ONLY YOU CAN DECIDE WHEN YOU ARE  
CONVINCED ENOUGH ABOUT SPECIFIC  
ASPECTS OF THE TITANIC

SINCE MY SCIENCE, TECHNOLOGY & SOCIETY [STS]  
RESEARCH INVOLVES FACTS, THEORIES, HYPOTHESES,  
REASONABLE CONCLUSIONS, ETC. -

THIS PRESENTATION ONLY EMPHASIZES  
SOME OF THE MAIN TECHNICAL ASPECTS  
& NOT MANY OF THE MORE BIZARRE, INTERESTING,  
SENSATIONAL, GLAMOROUS, ETC. EVENTS

THAT CAN BE A TOPIC OF ANOTHER PRESENTATION

OR

YOU CAN DO YOUR OWN RESEARCH IN THIS AREA

**STORY #1 -**

**LOCKER KEY BELIEVED TO BE  
FOR BINOCULARS ON CROWS NEST  
TAKEN OFF TITANIC IN ERROR, BEFORE SHE  
SAILED, BY SECOND OFFICER DAVID BLAIR  
WHEN SUDDENLY TRANSFERRED OFF FOR  
MORE ANOTHER OFFICER AT 11<sup>TH</sup> HOUR**

FORGOT TO LEAVE KEY BEHIND IN RUSH OF SUDDEN TRANSFER  
FROM TITANIC

WITHOUT IT CROW'S NEST BINOCULARS FOR LOOKOUT  
NOT AVAILABLE

LOOKOUT FRED FLEET TESTIMONY INDICATED WITH  
BINOCULARS ICEBERG WOULD HAVE BEEN SEEN SOONER  
TO PROVIDE ENOUGH TIME TO GET OUT OF THE WAY & THAT  
MR BLAIR HAD THE BINOCULARS WITH HIM DURING PREVIOUS  
2 DAY TRIP

MR. FLEET PREVIOUSLY USED BINOCULARS – KNOWN AS GLASSES –  
ON THE RMS OCEANIC, ANOTHER TRANS-ATLANTIC LINER

LOOKOUT WOULD HAVE FOUND THEM IF COULD OPEN LOCKER

HE KEPT THE KEY AS A MOMENTO & PASSED IT ON TO HIS DAUGHTER NANCY WHO GAVE IT TO THE BRITISH & INTERNATIONAL SEAMAN'S SOCIETY IN 1980'S

KEY NOW UP FOR AUCTION + POSTCARD BY MR. BLAIR TO HIS SISTER-IN-LAW INDICTING HIS DISAPPOINTMENT AT NOT BEING ON THE MAIDEN VOYAGE

KEY & POSTCARD EXPECTED TO BRING ON 09/22/2007 ABOUT 70,000 BRITISH POUNDS = ABOUT \$84,000 USA AT EXCHANGE RATE OF 1.2 USA \$ TO BRITISH POUND

REFERENCE –

[WWW.DAILYMAIL.CO.UK/NEWS/ARTICLE-478269](http://WWW.DAILYMAIL.CO.UK/NEWS/ARTICLE-478269)

OBVIOUS QUESTIONS / POINTS RAISED BY ARTICLE –

ONLY ONE [1] SUCH KEY FOR SUCH A LUXURY LINER  
& FOR SUCH AN IMPORTANT ITEM?

WHY NOT BREAK INTO THE LOCKER?

SECOND PAIR OF BINOCULARS ON BRIDGE, BUT ONLY  
TWO [2] PAIRS ON WHOLE SHIP ?

TITANIC WAS GOING TOO FAST FOR CONDITIONS WARNED  
ABOUT EARLIER

TITANIC NOT BUILT TO CRASH INTO ICEBERGS & SURVIVE

ETC.

MANY OTHER FACTORS INVOLVED

SO BLAIR CANNOT BE FULLY BLAMED

ANOTHER NICE INTERESTING STORY ON TITANIC  
SINKING

MANY SMALL DETAILS CAN CONTRIBUTE TO A  
GREAT DISASTER

BUT THE KEY HAD THE "POTENTIAL" TO SAVE  
THE TITANIC.

PERHAPS MOST CATASTROPHIC LAPSE IN MEMORY  
IN HISTORY, WITH GREAT EFFECTS – > 1500 LIVES LOST

STORY #2 –

POSSIBLE MUSIC PLAYED AS TITANIC SANK

J. MARSHALL BEVIL, PH.D., FORENSIC MUSICOLOGIST,

HAS DONE EXTENSIVE RESEARCH ON THIS TOPIC

ALONG WITH EVEN COMPUTER ASSISTED ANALYSIS

MANY COMPLEXITIES INVOLVED

PRESENTED AT OCTOBER 1999 MEETING OF SOUTHWEST  
REGIONAL CHAPTER OF THE AMERICAN MUSICOLOGICAL  
SOCIETY, RICE UNIVESITY, HOUSTON, TX

BUT HAVE TO REALLY READ HIS MATERIAL

BUT HIS BASIC CONCLUSIONS ARE –

- 1] “AUTUMN” MENTIONED BY MANY SURVIVORS WAS REALLY “SONGE D’AUTOMNE,” NOT THE HYMN TUNE
  
- 2] BOTH RATIONALE & BRIEF OPPORTUNITY FOR SUBSEQUENT PLAYING OF “NEARER, MY GOD, TO THEE,” MOST LIKEY SIR ARTHUR SULLIVAN’S “PROPIOR DEO,”
  
- 3] IF PLAYED, RECOGNIZED BY BRITISH SURVIVORS BUT CONFUSED WITH LOWELL MASON’S “BETHANY” BY BOTH AMERICAN & CANADIAN SURVIVORS – CLOSE RELATIONSHIP BETWEEN 2 SONGS

“SONGE D’AUTOMMNE” A WALTZ BY ARCHIBALD  
JOYCE

WAS POPULAR AT THAT TIME

ONE PERIOD WHITE STAR MUSIC BOOKLET DOES  
LIST THIS SONG AMONG MUSICAL SELECTIONS  
THAT LINE’S BANDMEN WERE PREPARED TO PLAY  
FOR PASSENGERS

ALSO RELATES STORY BY ELWANE MOODY, WELL KNOWN LEEDS  
MUSICIAN, CLOSE FRIEND OF HARLEY & JUST COMPLETED 22  
ATLANTIC CROSSING WITH HIM ON MAURTANIA

HARLEY EVEN ASKED MOODY TO ACCOMPANY HIM ON TITANIC,  
BUT HE DECLINED

MOODY SAID AFTER THE DISASTER HE BELIEVED THE PAPERS WHEN THEY SAID “NEARER MY GOD, TO THEE” WAS PLAYED AS HE WENT TO HIS DEATH – ANY OTHER HIM HE MIGHT NOT HAVE BELIEVED - - IT IS JUST WHAT HE WOULD DO

LEWIS CROSS, BASS VIOL PLAYER ON THE CELTIC, ANOTHER FRIEND OF HARTLEY SAID HARTLEY INDICATED MUSIC IS A BIGGER WEAPON THAN A GUN IN A BIG EMERGENCY, LIKE A SHIPWRECK

[REF [OURWORLD.COMUSERVE.COM/HOMEPAGES/CAPATHIA/PAGE3.HTM](http://OURWORLD.COMUSERVE.COM/HOMEPAGES/CAPATHIA/PAGE3.HTM) – ARTICLE BY GEORGE BEHE’S TITANIC TIDBITS, LAST UPDATED 02/09/2002 – FROM ESSAY FOR TITANIC HISTORICAL SOCIETY]

TITANIC MUSICIANS DIVIDED INTO 2 GROUPS –

TRIO – PLAYED MOST OFTEN IN THE A LA CARTE  
RECEPTION ROOM

REMAINING 5 PLAYED AT VARIOUS LOCATIONS,  
MOST OFTEN IN FIRST CLASS LOUNGE  
OR NEAR FIRST CLASS ENTRANCE TO BOAT DECK

INDIVIDUALLY OR IN PAIRS – ROOM TO ROOM, TABLE TO TABLE

GOT TIPS, BUT DISCRETELY – DEPENDED ON ABILITIES TO PLAY  
REQUESTS WHICH MAY NOT HAVE BEEN IN THEIR  
MEMORIZED 353 PIECE REPERTORY SO IMPROVIZE

BLEND INCONSPICUOUSLY AS POSSIBLE – BACKGROUND  
MUSIC FOR CONVERSATION, DINING, CARD PLAYING  
& OTHER SOCIAL ACTIVITIES

WALLACE HENRY (WALLY) HARLEY – BANDMASTER

CHOIRBOY, FATHER CHOIRMASTER METHODIST CHURCH

PERSONAL FRIEND & FELLOW MUSCIAN ELWANE MOODY  
NOTES HE ASKED HARLEY WHAT HE WOULD DO  
IN EVENT OF A CALAMITY AT SEA –

KEEP PASSENGERS CALM BY PLAYING CHEERFUL  
POPULAR MUSIC

BUT IF DEATH IMMINENT WOULD PROBABLY PLAY  
“NEARER, MY GOD, TO THEE”

1 OR 2 OTHER MUSICIANS PROBABLBY COULD ALSO PLAY IT  
WITHOUT WRITTEN MUSIC

MOST LIKELY CANDIDATE WOULD BE SETTING “PROPIOR DEO”  
[REF P#6 OF 22, DOWNLOAD BEVIL]

HARLEY'S FAMILY FELT SO STRONGLY THAT HE DID  
PLAY IT THAT THEY HAD THE INITIAL BARS  
OF THE "PROPIOR DEO" SETTING INSCRIBED  
ON HIS TOMBSTONE

CELLIST JOHN WELEY WOODWARD WAS ALSO A METHODIST  
& KNEW IT MOST OF HIS LIFE

OTHER MUSICIANS WOULD HAVE LITTLE TROUBLE  
IMPROVISING

“THE TITANIC”

OR

“IT WAS SAD WHEN THAT GREAT  
SHIP WENT DOWN”

OR

“TITANIC (HUSBANDS AND WIVES)”

FOLK & CHILDREN’S SONG ESPECIALLY  
IN USA SUMMER CAMPS

REGIONAL VARIATIONS

BUT SUNG UPBEAT TONE

THERE IS A CD AVAILABLE TITLE -

“MUSIC ABOARD THE TITANIC”

PRODUCER CARL WOLFE 1997

RECREATED STRING ENSEMBLE  
THAT PERFORMED “LIGHT CLASSICS”  
ON THE TITANIC

OFFICIALLY ENDORSED BY TITANIC: THE EXHIBITION

FROM CDBABY & AMAZON ABOUT \$15

WHITE STAR LINE SONGBOOK

FROM [WWW.MELODYLANE.NET](http://WWW.MELODYLANE.NET)

FIRST & SECOND CLASS PASSENGER SONGS

THIRD CLASS PASSENGER SONGS

STORY #3 –

CONTRIBUTION OF COAL BUNKER FIRE

PAPER NO. 15-6, GEOLOGICAL SOCIETY OF AMERICAN 2004  
DENVER ANNUAL MEETING, NOVEMBER 7 – 10, 2004

ROBERT H. ESSENJIGH, MECHANICAL ENGINEERING, OHIO STATE  
UNIVERSITY, COLUMBUS, OH

[REF – [GSA.CONFEX.COM/GSA/2004AM/FINALPROGRAM/ABSTRACT\\_80510.HTM](http://GSA.CONFEX.COM/GSA/2004AM/FINALPROGRAM/ABSTRACT_80510.HTM)]

WHY WAS TITANIC AT FULL SPEED AT NIGHT  
THRU ICEBERG FIELD, IN SPITE OF RADIO  
WARNINGS?

SMOLDERING FIRE IN COAL BUNKER #6?

SPONTANEOUS IGNITION OF CAOL IN SEAMS,  
CULM BANKS & BUNKERS WELL KNOWN  
WITH LONG HISTORY

AT TIME OF TITANIC SAILING, KNOWN AS CHRONIC, BUT  
NOT ACUTE PROBLEM

MOST EFFECTIVE CONTAINMENT SOLUTION INVOLVED  
SAILING AT FULL SPEED TO DRAWDOWN THE COAL  
IN THE BUNKER UNTIL SMOLDERING COAL COULD  
BE EXTRACTED AND FED INTO THE BOILER

THIS MAY BE WHY TITANIC PROCEEDED AT FULL  
SPEED THRU ICE FIELD

BUNKER FIRES CHRONIC PROBLEM SO FIRE CONTROL  
TEAMS COMMON IN PORT & ON SHIPS & TITANIC

FIRE IN BUNKER #6 WAS UNDER CONTINUING CONTROL  
ACTIONS BEFORE & DURING VOYAGE

BUT FULL STEAMING NOT SUFFICIENT FOR ADEQUATE  
DRAW DOWN IN THE SHIP

DATA & ANALYSIS INDICATE BUNKER FIRE STILL ACTIVE  
AT TIME OF COLLISION

COMPUTER MODELS SHOW POSSIBLE BEHAVIOR PATTERN  
RELEVANT TO TITANIC BUNKER FIRE

STORY #4 –

NEW BOOK –

DEFECTIVE IRON RIVETS & NOT  
BRITTLE PLATES PLAYED AN IMPORTANT ROLE\

“WHAT REALLY SANK THE TITANIC: NEW FORENSIC  
DISCOVERIES”  
BY MCCARTY & FOECKE  
AMAZON ABOUT \$16

“THE SECRET OF HOW THE TITANIC SANK”  
NEW EVIDENCE HAS EXPERTS RETHINKING HOW  
THE LUXURY PASSENGER LINER SANK  
BY JUSTIN EWERS 09/25/2008  
U.S. NEWS & WORLD REPORT

TESTED BIGGER PIECES OF SHIP  
DISPROVED “BRITTLE” STEEL PLATES  
CAUSED SINKING

OUT OF 3 MILLION RIVETS USED –

SAMPLE OF 48 “IRON” RIVETS SHOWED HIGH  
LEVELS OF “SLAG” – A RESIDUE OF SMELTING  
[PROCESS OF REFINING METAL]  
CAN MAKE METAL FRACTURE PRONE

TIME PRESSURES TO BUILD 3 LARGE SHIPS AT SAME TIME,  
NOT COST, STARTED USE OF LOWER QUALITY MATERIAL TO  
FILL GAPS

POUNDED BY HAND INTO SHIPS BOW & STERN SINCE LARGE  
MACHINES REQUIRED TO POUND “STEEL” RIVETS DID NOT FIT

STEEL RIVETS STRONGER THAN IRON & USED IN MORE  
ACCESSIBLE MIDDLE OF SHIP

STRONGER RIVETS MIGHT HAVE SLOWED  
SINKING PROCESS

BUT WEAK RIVETS REASON REJECTED BY HARLAND &  
WOLFF RETIRED ARCHIVIST

OLYMPIC USED SAME RIVETS & SURVIVED MAJOR COLLISIONS  
BUT WAS STRENGTHENED AFTER TITANIC DISASTER – DOUBLE  
HULLS & TALLER BULKHEADS

2005 EXPEDITION BY KOHLER & CHATTERTON FOUND NEW CLUE –

FOUND LARGE PIECES OF SHIPS BOTTOM WHERE 2 HULL SECTIONS  
HAD SPLIT IN TWO

ANALYSIS OF EDGES OF THESE HULL PIECES INDICATED SHIP SPLIT  
AT ANGLE OF ABOUT 11 DEGREES, NOT 45 DEGREES

TEARING INTERRUPTED IN MIDDLE OF CRACKING PROCESS SO  
STERN COULD REGAIN BUOYANCY

WIKIPEDIA REFERENCE –

INDICATES TITANIC BROKE IN TWO  
BETWEEN THE LAST 2 FUNNELS

BOW WENT COMPLETELY UNDER

STERN RIGHTED ITSELF SLIGHTLY & THEN ROSE  
VERTICALLY, THEN SANK AFTER A FEW MOMENTS

2 SECTIONS BEHAVED VERY DIFFERENTLY –

STREAMLINED BOW PLANED OFF ABOUT 2000 FEET BELOW  
SURFACE & SLOWED, LANDING RELATIVELY GENTLY

STERN PLUNGED VIOLENTLY TO OCEAN FLOOR & HULL TORN  
APART ALONG THE WAY FROM MASSIVE IMPLOSIONS BY  
COMPRESSION OF AIR TRAPPED INSIDE & SMASHED INTO  
BOTTOM AT CONSIDERABLE SPEED, GRINDING THE HULL DEEP  
INTO THE SILT

BACK TO ORIGINAL PREVIOUS REFERENCE –

IF STERN RAISED 45 DEGREES OUT OF WATER, ONCE STERN TORE OFF, NOTHING WOULD HAVE STOPPED IT & HULL PIECES WOULD HAVE TORN IN TWO

SURVIVOR CHARLIE JOUGHIN, TITANIC'S CHIEF BAKER, REPORTED NO SIGNS OF A HIGH ANGLE BREAK – NO SUCTION, NO BIG SPLASH, ETC.

HE SAID HE SWAM AWAY WITHOUT EVEN GETTING HIS HAIR WET

ANOTHER SURVIVOR ABOUT 50 FEET FROM SHIP SAID HEARD A “SHLOOP” AND IT WAS GONE – NOT IF 25,000 TONS OF STEEL FELL NEARBY

SHIP RISING HIGH COULD HAVE BEEN AN OPTICAL ILLUSION SINCE PROPELLERS WOULD BE RAISED OUT OF WATER MAKING IT APPEAR A HIGHER ANGLE

EXPERTS AGREE SHIP SANK AT A SHALLOW ANGLE

SHIP NOT NECESSARILY WEAK – 38,000 TONS OF WATER [IF 1 GAL = 8 LBS, THEN 9.5 MILLION GALLONS] FILLED BOW & PUSHED STERN UP 11 DEGREES OUT OF WATER, SO SHIP WAS LOADED BEYOND CAPACITY & CRACKED IN TWO

TITANIC COULD HAVE BEEN BUILT STRONGER, SO COULD HAVE STAYED AFLOAT LONGER, BUT BUILT AS A PASSENGER LINER, NOT A BATTLE SHIP

BUILT TO BEST OF KNOWLEDGE AT TIME & PROPER STANDARDS

TITANIC NOT DESIGNED TO RUN INTO ICEBERGS! WHEN IT DID, NOTHING COULD STOP IT FROM SINKING.

COMMENTS TO US NEWS ARTICLE –

ICEBERG MAY HAVE ALSO SCRAPED BOTTOM OF TITANIC SINCE  
FLIP OVER WHEN MELT

FROM LIBRARY.THINKQUEST.ORG/17297/WHATSANK\_TITANIC.HTM –

ULTRASONIC SCANNING OF WRECK SHOWS HOLE INFLICTED  
BY ICEBERG ONLY 12 FEET SQUARE [12' X 12'] BUT SPREAD ACROSS  
LENGTH OF SHIP ALLOWING WATER TO POUR INTO 5 OF THE  
WATERTIGHT COMPARTMENTS

ME – IF HOLE ½” WIDE, THEN WOULD BE 288 FEET LONG IN ORDER  
TO GET 12 SQUARE FEET

[WIKIPEDIA REF SAYS 299 FEET]

COMMENTS ON BOOK –

AUTHORS MCCARTY & FOECKE HAVE DOCTORATES  
IN MATERIALS SCIENCE

RECOMMEND “TITANICS LAST SECRETS” BY BRAD MATSEN  
FOR REAL ANSWER [?]

ONLY 48 OF OVER 3 MILLION RIVETS ANALYZED & DID NOT  
SHOW CAME FROM DAMAGED SECTION OF BOW

MOST CRITICAL & EXTENSIVE DAMAGE IN AREA WHERE  
HYDRAULICALLY RIVETED STEEL RIVETS USED – CARGO  
HOLD 2 & BOILER ROOMS 6 & 5

STILL A HYPOTHESIS & NOTHING PROVEN

ME – COULD HAVE IRON RIVETS FAILURE HELPED STEEL  
RIVETS TO FAIL?

HYDRAULICALLY DRIVEN STEEL RIVETS USED IN MIDDLE OF SHIP  
SINCE WHERE MORE BENDING STRESSES ARE – MIDDLE  
3 / 5 OF SHIP

HAND DRIVEN IRON RIVETS IN FRONT 1 / 5 AND BACK 1 / 5 OF  
SHIP WHERE LESS SPACE FOR HYDRAULIC DRIVING DEVICE

METALLURGICAL TESTING OF WROUGHT IRON RIVETS RECOVERED  
MORE PRONE TO POP OUT IF SUBJECT TO STRESS

STEEL RIVETS SUPERIOR STRENGTH & DUCTILITY LESS  
PRONE TO FAILURE

UNDERWATER PHOTOGRAPHY SHOWS MISSING RIVETS FROM  
A SEAM IN OUTER PLATING IN AREA OF #5 & 6 BOILER ROOMS  
WHERE EYEWITNESSES SAID SAW FLOODING

ME –

SOMETIMES MORE INFORMATION JUST RAISES  
MORE QUESTIONS THAN IT ANSWERS !

MANY SMALL FACTORS COMBINE FOR DISASTER  
RATHER THAN ONE MAIN CAUSE MANY TIMES

GET TO A CRITICAL MASS OF SUCH SMALL FACTORS THAT  
CAN CAUSE A “TIPPING POINT” [EVEN RECENT BOOK BY  
THAT TITLE] & A DISASTER OCCURS

OUTDATED LAWS & THINKING DO NOT KEEP UP WITH  
THE RAPID ADVANCES OF STS & READILY  
PREVENTABLE TRAGEDIES CAN RESULT

ALWAYS CONTINUING SPECULATIONS & CONSPIRACY  
THEORIES

## WHITE STAR LINE OF TITANIC HISTORY -

1850 LIVERPOOL FIRST FOUNDED BY PILKINGTON & WILSON

FOCUS ON AUSTRALIAN GOLD MINE TRADE

CLIPPER SHIPS OF COMPOSITE HULLS [IRON & WOOD FRAME]

1867 PURCHASED BY HARLAND & ISMAY

GOOD RELATIONSHIP WITH RELFAST SHIPBUILDERS HARLAND & WOLFF WHICH APPLIED A FIXED PERCENTAGE OF BUILDING COSTS AS THEIR FEE.

THEY WOULD NEVER BUILD SHIPS FOR WHITE STAR COMPETITORS & WHITE STAR WOULD NOT BUY ANY SHIPS FROM OTHER THAN HARLAND & WOLFF

[REF – [LIBRARY.THINKQUEST.ORG/17297/TITANIC\\_PROLOGUE.HTM](http://LIBRARY.THINKQUEST.ORG/17297/TITANIC_PROLOGUE.HTM)]

BY EARLY 1900'S, VISCIOUS RATE WAR AMONG  
SHIPPING COMPANIES

USA J. P. MORGAN BOUGHT UP ALL RIVAL SHIPPING  
COMPANIES & FORMED IMM = INTERNATIONAL  
MERCANTILE MARINE TRUST

THREAT TO BRITISH SHIPPING COMPANIES

CUNARD LINE QUICKLY BUILT LUSITANIA & MAURITANIA –  
LARGEST & FASTEST WORLD EVER SAW

THIS CONVINCED RIVAL WHITE STAR TO ACCEPT MORGAN'S  
GENEROUS BUYOUT

PART OF AGREEMENT WAS THAT WHITE STAR SHIPS COULD  
BE REQUISITIONED BY BRITISH NAVY IF NEED AROSE – VERY  
SMART WITH ENGLAND ONLY A FEW YEARS FROM WW I – TIES  
IN NICELY WITH MY RESEARCH ON BRITISH NAVY AT THAT TIME

DEAL FINALIZED IN 1902

HARLAND & WOLFF WOULD THEN BUILD ALL THE SHIPS UNDER MORGAN'S IMM TRUST – A GREAT DEAL FOR HARLAND & WOLFF!

COMPETITION TO WHITE STAR – CUNARD LINE & GERMAN LINES ALSO BUILDING “MONSTER” SHIPS

SO WHITE STAR DECIDED TO BUILD INITIALLY 2 TWIN LEVIATHANS [SEA MONSTER] LARGER THAN CUNARD LINE SHIPS – COULD CARRY MORE PASSENGERS & FREIGHT

FEATURE LAST WORD IN LUXURY RATHER THAN SPEED

TOTAL OF 3 SHIPS CALLED OLYMPIC CLASS LINERS

FIRST – OLYMPIC

SECOND – TITANIC

THIRD – GIGANTIC – LATER RENAMED BRITANNIC  
AFTER TITANIC DISASTER

INFORMATION FROM EN.WIKIPEDIA.ORG

AT THAT TIME, LARGEST PASSENGER STEAMSHIP  
IN THE WORLD

ONE OF MOST DEADLY PEACETIME MARITIME  
DISASTERS IN HISTORY

HIT ICEBERG 04/14/1912

SANK 2 HOURS 40 MINUTES LATER ON 04/15/1912

1517 PEOPLE DIED

HIGH CASUALTY RATE DUE TO LACK OF

SUFFICIENT LIFEBOATS, BUT

# HAD LEGAL AT TIME

CAPACITY 3547

LIFEBOATS FOR ONLY 1178 [33% OF CAPACITY]

2240 ON BOARD [63% CAPACITY]

SO LIFEBOATS COULD SAVE ONLY

52 % ON BOARD

WOMEN & CHILDREN FIRST – SO DISPROPORTIONATE  
NUMBER OF MEN DIED

MOST ADVANCED TECHNOLOGY AVAILABLE AT THE TIME  
EXTENSIVE SAFETY FEATURES & EXPERIENCED  
CREW

BELIEVED TO BE “UNSINKABLE”

GREAT SHOCK TO MANY IS SANK

CHANGED MARITIME LAW

DISCOVERY OF WRECK CONTRIBUTED TO CONTINUED  
INTEREST IN & NOTORIETY OF TITANIC

## GENERAL CHARACTERISTICS

[ROUNDED OFF – ABOUT]

TONNAGE = 46,328

DISPLACEMENT = 52,310

[WT DISPLACED WATER]

LENGTH = 882 FEET

BEAM = 92 FEET

[WIDTH ACROSS]

HEIGHT = 175 FEET – KEEL {BOTTOM} TO TOP OF FUNNELS

HEIGHT FROM WATERLINE TO BOAT DECK = 59 FEET

DRAUGHT = 34 FEET

[???

DEPTH = 64 FEET

DECKS = 9

POWER = 24 BOILERS / 159 COAL BURNING FURNACES

2 STEAM ENGINES – 30,000 HP FOR PROPELLERS

1 LOW PRESSURE TURBINE – 16,000 HP

2 BRONZE TRIPLE BLADE WING PROPELLERS

1 BRONZE QUADRUPLE BLADE CENTER PROPELLER

TOP SPEED 23 KNOTS [26 MPH]

ONLY 3 OF 4 FUNNELS FUNCTIONAL

FOURTH USED FOR VENT – ADDED TO  
MAKE SHIP LOOK MORE IMPRESSIVE

EACH 62 FEET HIGH

SINCE CARRIED MAIL – CALLED

RMS = ROYAL MAIL STEAMER

SS = STEAM SHIP

EXTENSIVE ELECTRICAL SUBSYSTEM &  
ELECTRIC LIGHTS

2 MARCONI RADIOS & POWERFUL 1500 WATT  
SET MANNED BY 2 OPERATORS  
WORKING IN SHIFTS ALLOWING  
CONSTANT COMMUNICATION – BUT  
EMPLOYED BY MARCONI & NOT WHITE STAR

## 840 STATEROOMS

416 FIRST CLASS [50%]

162 SECOND CLASS [20%]

262 THIRD CLASS [30%]

40 OPEN BERTHING AREAS

FIRST CLASS PASSENGERS PAID A HEFTY FEE

MOST EXPENSIVE ONE WAY TRANS

ATLANTIC PASSAGE = \$4350 = ABOUT \$80,000

TODAY

WIKIPEDIA REFERENCE –

FIRST CLASS = 329 [25%]

SECOND CLASS = 285 [22%]

THIRD CLASS = 710 [54%]

PASSENGER TOTAL = 1324 [60%]

CREW = 899 [40%]

OVERALL TOTAL = 2223

NICE RATIO ABOUT 1 CREW  
MEMBER PER 1.5  
PASSENGERS

LUXURIES INCLUDED

SWIMMING POOL

GYMNASIUM

TURKISH BATH

LIBRARIES

SQUASH COURT

ORNATE WOOD PANELING

EXPENSIVE FURNITURE / DECORATIONS

CAFÉ PARISIEN FOR 1<sup>ST</sup> CLASS WITH

SUNLIT VERANDA + TRELIS DECORATIONS

CONSTRUCTION BEGAN 03/31/1909

HULL LAUNCHED 05/31/1911

OUTFITTING COMPLETE 03/11/1912

[COMPARE TO BUILDING BATTLESHIPS]

## LIFEBOATS

ALEXANDER CARLISLE SHIPYARD'S CHIEF DRAUGHTSMAN  
& GENERAL MANAGER – DESIGN SUPERSTRUCTURE  
& STREAMLINING + EFFICIENT LIFEBOAT DAVIT DESIGN

LEFT IN 1910 BEFORE TITANIC LAUNCH WHEN BECAME  
SHAREHOLDER IN COMPANY THAT MADE DAVITS

NEW LARGER TYPE OF DAVIT SO COULD CARRY 48 LIFEBOATS  
WOULD HAVE PROVIDED PLACES FOR ALL ON BOARD  
NIGHT OF DISASTER  
BUT NOT ENOUGH FOR FULL CAPACITY OF 3600  
PASSENGERS [& CREW?]

WHITE STAR DECIDED ON ONLY 16 WOODEN LIFEBOATS  
MINIMUM ALLOWED BY BOARD OF TRADE BASED  
ON TONNAGE

4 FOLDING LIFEBOATS CALLED COLLAPSIBLES  
20 TOTAL COULD HOLD 1178 OF 2240 [52%] PEOPLE ABOARD

BECAUSE OF TECHNICALITIES, TITANIC CARRIED  
SLIGHTLY MORE LIFEBOAT ACCOMMODATIONS  
THAN STRICTLY LEGALLY REQUIRED

REGULATIONS MADE NO EXTRA PROVISIONS FOR LARGER  
SHIPS SINCE 1894 WHEN LARGEST WAS ONLY 13,000 TONS

NUMBER OF LIFEBOATS DETERMINED BY SHIP'S GROSS  
REGISTER TONNAGE RATHER THAN HUMAN CAPACITY

OTHER CONTROVERSIAL SPECIFIC DETAILS & TESTIMONY

299 FOOT GASH ALLOWED 5 FORWARD COMPARTMENTS  
TO FLOOD BUT WATERTIGHT DOORS SHUT

TITANIC COULD STAY AFLOAT WITH 4 FLOODED COMPARTMENTS

5 WATER FILLED COMPARTMENTS WEIGHED DOWN FRONT OF  
TITANIC SO TOPS OF FORWARD WATERTIGHT  
BULKHEADS FELL BELOW SHIPS WATERLINE  
ALLOWING WATER TO POUR INTO ADDITIONAL  
COMPARTMENTS

ME – SO IT WAS JUST A MATTER OF TIME BEFORE IT WOULD SINK

LIFEBOATS ORDERED TO BE READIED & DISTRESS CALL SENT

CLOSEST SHIP TO RESPOND WAS CUNARDS CARPATIA 58 MILES  
AWAY - & WOULD ARRIVE ABOUT 4 HOURS TOO LATE  
TO RESCUE ALL PASSENGERS

ONLY LAND BASED LOCATION TO RECEIVE DISTRESS  
CALL WAS IN NEWFOUNDLAND

CONTROVERSEY ABOUT NEARBY CALIFORNIAN & POSSIBLY  
ANOTHER "MYSTERY" SHIP

SOME SOCIETY ASPECTS OF TITANIC DISASTER –

ABOUT 60% [199] OF FIRST CLASS PASSENGERS SURVIVED

ABOUT 42% [119] SECOND CLASS

ONLY ABOUT 25% [174] THIRD CLASS

ONLY ABOUT 24% [214] CREW

TOTAL OF 706 SURVIVED OF 2223 [32%]

MOST DEATHS CAUSED BY HYPOTHERMIA IN 28 DEGREE WATER

MEN & MEMBERS OF LOWER CLASSES LESS LIKELY TO SURVIVE

92% MEN PERISHED IN SECOND CLASS

THIRD CLASS PASSENGERS FARED VERY BADLY

CHILDREN –

6 OF 7 FIRST CLASS SURVIVED

ALL SECOND CLASS

34 % THIRD CLASS

WOMEN –

NEARLY ALL FIRST CLASS SURVIVED

86% SECOND CLASS

LESS THAN HALF THIRD CLASS

OVERALL –

ONLY 20% MEN SURVIVED

75% WOMEN

MORE BRITISH PASSENGERS DIED THAN AMERICAN

POSSIBLY BECAUSE BRITISH TOO POLITE !

CAPTAIN SMITH SHOUTED – “BE BRITISH, BOYS, BE  
BRITISH!” AS TITANIC SANK SAID WITNESSES

2 DOGS SURVIVED ! MANY STORIES ABOUT TITANIC DOGS.  
A PASSENGER RELEASED DOGS & WERE SEEN RUNNING  
UP & DOWN DECKS

AS YOU CAN IMAGINE, MANY OTHER VERY PERSONAL  
& EMOTIONAL STORIES

READ THEM YOURSELF !

MANY MEMORIALS TO TITANIC DISASTER –

ENGLAND

USA

EVEN FOR WALLACE HARTLEY & OTHER MUSICIANS  
WHO PLAYED ON TITANIC

04/12/2012 WILL BE 100<sup>TH</sup> ANNIVERSARY OF SINKING  
OF TITANIC & MANY EVENTS PLANNED  
AROUND THE WORLD

MANY INVESTIGATIONS LED TO NEW MORE  
UPDATED LAWS & REGULATIONS

BOTH BRITISH & USA INQUIRIES FOUND SS CALIFORNIAN  
& ITS CAPTAIN, STANLEY LORD, FAILED TO GIVE PROPER  
ASSISTANCE TO TITANIC.

TO BE CONTINUED AS

INTEREST &

RESOURCES PERMIT

JUST LET ME KNOW !

