

SIS | Risk Management

*“Smarter Engineering Assessments to Drive a
Competitive Edge”*

Ludovic Audoin
Managing Director

How is this helpful to the insurance transaction?

“It has been observed from the assessment that the platform has a minimum RSR of 1.432

“This is an L-2 structure and does not meet any of the assessment triggering criteria in NTL No. 2007-G27”

“The following table presents the critical code checks associated for each one of the joints proposed to be inspected through CVI i.e. the joints which present code checks greater than 0.70”

“The sectional properties difference for jacket members is a concern. There are changes in sectional diameter of braces and legs which could alter the environmental loading acting on the jacket.”

“The horizontal jacket brace at TOJ El. (+) 14' that goes from Row "A" to Row "B" is a 20" dia. x 0.375" (35-ksi steel) at its middle section with two (2) cans at its ends (0.500" thickness and 50-ksi steel). The unity check stress ratio for its "as-is" condition was found to be 1.20 (at the thinner steel area).”

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1 Executive Summary

1.1 Asset Identity

Asset Name	Example Block 123 A "EB-123A" (BSEE ID#)		
Ownership	Oil Operating LLC		
Location	US Gulf of Mexico		
Coordinates	Latitude	28° 45' 40"	Longitude -89° 32' 30"
Installation Date	1988		
Water Depth	55 ft		
Air Gap	44 ft		

1.2 SIS Integrity Score Results

The major risks for offshore platforms fall almost exclusively into 2 areas:

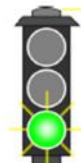
- Structural failure – typically due to a combination of inadequate design, lack of maintenance (corrosion) or an extreme environmental event (Hurricane, earthquake, etc.)
- Fire and Explosion – typically following the ignition of a hydrocarbon leak.

The SIS | INTEGRITY SCORE™ system has been developed by SIS and LR which scores a platform on over 50 specific elements. These are then weighted to provide an overall rating for Structural integrity and Fire and Explosion integrity (see details in Section 5).

Structural
SIS | INTEGRITY SCORE
6.2



Fire and Explosion
(including releases from wells)
SIS | INTEGRITY SCORE
7.1



1.3 Structural Risk Summary

SIS | INTEGRITY SCORE
6.2

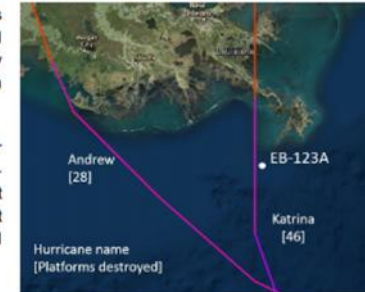
This asset presents a **better than average** risk to underwriters in terms of structural failure.

The key points contributing to this conclusion are as follows:

- The platform is of a robust design, has a 44 feet air gap to bottom of steel (cellar deck) and was originally designed for the 100-year wave criteria required at the time (1988).
- EB-123A has survived 2 major hurricane events during its lifetime - Hurricane Andrew and a near direct hit from Hurricane Katrina, without sustaining significant structural damage.

Hurricane	Distance
Andrew 1992	70 km
Katrina 2005	3 km

- The last structural inspections (2015) do not show any significant damage or corrosion that would be deemed likely to impact structural integrity. There are some "anomalies" recorded, but the 2 of most interest have been assessed by Assessco, a reputable consultant, as only having a minor integrity impact.
- Ship impact risk is relatively high as the platform is in close proximity to a busy shipping fairway.



SIS | INTEGRITY SCORE

Age
 Materiality
 Structural Design Rate
 No. Of tags
 Type Of Rating (K, K, B, L)
 Fire Design
 Air Gap / Leak Mitigation
 Orientation
 Hurricane Damage History
 Corrosion Rating
 Earthquake Design
 Slip Impact Risk

Structural Design **6.7**

Tapsite Inspection History
 Underwater Inspection History
 Damage / Anomaly Reports
 Flooded Members
 Score
 Structural Weld Inspection Reports
 Corrosion
 Cathodic Protection (CP) Functionality
 Marine Growth

Structural Maintenance **5.7**

Subsurface Safety Valve
 Rise Section And Sub-sections
 Safety Systems To API RP 14C
 Hazard Identification Report
 Electrical Area Classification
 Pressure/Vacuum Control
 APC Drawings / Design Reports P.A. Sealed
 As-built Drawings
 Relief System Designed To API 201 / API 200
 Calculations For Emergency Relief

Safety System Design **7.1**

QIQ / Value Testing
 Mechanical Integrity Reports (MIR)
 Listing Of Critical Equipment
 Testing Requirements For Critical Equipment
 Test Records
 Remedial Action Status

Safety Systems maintenance **6.2**

Listing Of Process Equipment / Plant
 Inspection Program / Reports / Requirements
 Failure History - Inspection / Test Records
 Remedial Action Status
 Complexity Factor

Hydrocarbon release prevention **7.3**

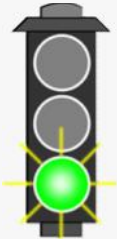
Asset Management
 Corrosion Management
 Water Testing
 Well Operations / Intervention Procedures

Well maintenance **8.4**

Safety & Environmental Management Plan
 Safety And Environmental Information
 Hazard Analysis
 Management Of Change
 Operating Procedures
 Safe Work Practices
 Training
 Emergency Response And Control
 Incident Investigation
 SIMP - Audit
 HSE Statistics
 Fire And Gas Detection Systems
 Fire Protection System

Operational management / Emergency preparedness **6.8**

Structural
6.2



Fire and Explosion
7.1

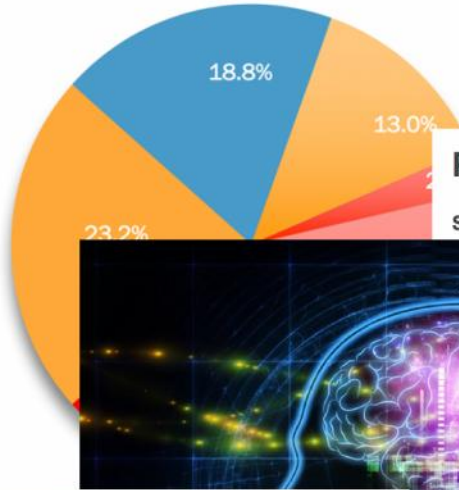


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Attack Vectors
July 2017



Phishir
Summary

Criminals Hacked A Fish Tank To Steal Data From A Casino

Lee Mathews, CONTRIBUTOR
Clustering, pondering, and writing about tech. Generally in that order. [FULL BIO](#)
Opinions expressed by Forbes Contributors are their own.

Hackers are a resourceful bunch, and they'll look for any weakness that can be exploited to break in to a computer network. Once they're in, they'll use any available method to get the data they discover out.



Shutterstock



Fridges under attack

Connected devices are in their infancy, yet this has not stopped attackers from already finding a way to hack them. Last month, security provider Proofpoint said it had uncovered what may be the first proven Internet of things-based cyberattack involving conventional household smart appliances.



Robyn Beck | AFP/Getty Images



Godzilla Road Sign

As more and more devices are networked together, it makes it easier for hackers to manipulate them. Case in point: when some ambitious pranksters figured out how to get into electronic road signs in San Francisco in 2014, they re-programmed the messages to read "GODZILLA ATTACK - TURN BACK!" Thankfully, no accidents were caused by drivers fleeing giant radioactive lizards, but it still caused a lot of confusion.

Email Phishi

malware, the highest rate in five years. Email scams, relying on spear-phishing emails, targeted draining \$3 billion over the last three years.



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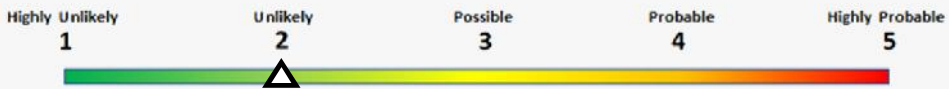
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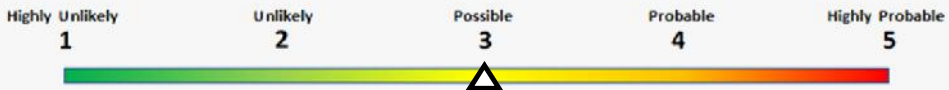
Insider Threat (Unwitting)



Insider Threat (Witting)



Cyber Terrorism



Hacktivist



Industrial Espionage



State Actors



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