Supplementary Material-1

Our main model of predicting 'Aircraft Damage' is analyzed through '' Aircraft Wildlife Strikes ''[28]

Here's the main description:

The information seems to be a list of flight activities categorized by different phases and conditions. However, it lacks specific details about aircraft systems. To elaborate according to aircraft systems, I'll infer based on the context you've given.
The data appears to catalog various flight phases, warnings issued, and visibility conditions across different FAA regions. Analyzing this from an aircraft systems perspective might involve understanding how different systems are engaged or affected during these flight phases.
1. Flight Phase: Each phase mentioned (e.g., climb, takeoff run, approach, landing roll, en route) involves specific aircraft systems working in tandem or undergoing specific procedures:
- Takeoff Run: During this phase, the engines, flight controls, and landing gear systems are critical. The engines power the aircraft for takeoff, flight control surfaces are adjusted for steady acceleration, and landing gear retraction occurs after liftoff.
- Climb: Climbing involves engine power adjustments, altitude control systems, and potentially pressurization systems as the aircraft ascends to its cruising altitude.
- Approach: This phase involves navigation systems, landing gear extension, flap deployment, and descent planning. It requires precise navigation and adjustments for landing.- Landing Roll: Here, the landing gear, brakes, and spoilers (if equipped) are engaged. The aircraft slows
down after touchdown, using its braking systems and aerodynamic devices to aid in deceleration.
- En Route: This generally indicates the phase of steady flight between departure and destination. Various systems like navigation, communication, and autopilot might be engaged for smooth and safe flight.
2. Warnings Issued: The 'Y' and 'N' denote whether a warning was issued or not, but the specific nature of these warnings isn't detailed. Warnings could relate to system malfunctions, weather conditions, or procedural alerts that pilots must address or monitor.
3. Visibility and Time of Day: Day, night, dusk conditions affect aircraft systems differently. Lighting systems, navigation aids, and cockpit displays might be adjusted based on external visibility.
For instance:
- During nighttime approaches or takeoffs, lighting systems, instrument displays, and navigation aids become more critical due to reduced visibility.
- Daytime operations might focus on systems that assist with visibility for the pilots, like anti-glare measures or sunshades.
However, without specific details about the warnings issued or the aircraft models involved, it's challenging to precisely analyze the impact on individual aircraft systems or the reasons behind the warnings issued during these flight phases.
The provided data seems to present information related to wildlife encountered during aircraft operations, detailing various species, their attributes, and weather conditions. Explaining this concerning aircraft systems would involve considering how these factors interact with the safety and operation of the aircraft:
1. Precipitation (FOG/NONE): Precipitation or fog can significantly impact an aircraft's operation, particularly visibility. Fog can reduce visibility levels, potentially leading to altered flight procedures, the use of specialized navigation systems, or even flight delays or diversions.
2. Height, Speed, Distance: These parameters don't directly impact aircraft systems but provide context for the encounter with wildlife, potentially indicating the altitude or speed at which the aircraft is flying

when encountering these species.3. Species ID and Name: Different species pose varying levels of risk to aircraft. Large birds or flocks, like
geese or vultures, can cause significant damage if struck by an aircraft. Birds and wildlife in the vicinity of airports pose a threat to flight safety, potentially leading to bird strikes that can damage engines or aircraft structures.

4. Explanation According to Aircraft Systems:
- Weather Radar and Sensors: In foggy conditions, weather radar systems might be employed to detect nearby weather phenomena and optimize flight paths. These systems help in avoiding turbulent areas and provide information on precipitation, which includes fog.
- Collision Avoidance Systems: For wildlife encounters, collision avoidance systems or Traffic Collision Avoidance Systems (TCAS) alert pilots to nearby aircraft or, in some cases, large birds. These systems aid in preventing mid-air collisions or potential conflicts with birds.
- Engine and Structure Protection: Bird strikes can damage aircraft engines or impact the structure. Aircraft systems incorporate design features and materials to withstand or minimize damage from bird strikes.
- Pilot Awareness and Procedures: Pilots receive training on wildlife encounters and bird strike mitigation techniques. When encountering wildlife, they might execute evasive maneuvers or follow specific procedures to minimize risk.
- Flight Planning and Communication: Flight planning software and communication systems enable pilots to receive real-time updates on weather conditions, including fog or precipitation, and wildlife activity in the vicinity of the flight path. Air traffic control might provide advisories to pilots regarding known wildlife hazards.
- Emergency Response Preparedness: Aircraft systems also account for emergency responses in case of bird strikes or encounters with wildlife, enabling pilots to safely handle and navigate the aircraft if such an event occurs.
Encountering wildlife, especially birds, during flight poses a considerable safety risk, and aircraft systems and procedures are designed to mitigate these risks as much as possible for the safety of passengers and the aircraft.The dataset appears to catalog instances of wildlife encounters and their impact on aircraft operations,
particularly concerning the quantity of species encountered, the resulting flight impact, aircraft damage, and radome strikes.
Here's an explanation based on aircraft systems and their relation to this data:
1. Species Quantity: This refers to the number of animals or species encountered during flight. Higher quantities might increase the likelihood of a significant impact on the aircraft.
2. Flight Impact: This category likely indicates the severity or consequence of the wildlife encounter on the flight operations:
- Precautionary Landing: This decision involves landing the aircraft due to a potential risk or concern arising from the encountered wildlife. It could be prompted by safety protocols or indications of a threat to the aircraft's systems or structure.
- Other: A vague category that might encompass various non-specific impacts or responses not falling under a precautionary landing or aborted takeoff. This could include minor disturbances or encounters that don't pose immediate threats.
3. Aircraft Damage and Radome Strike:
- Aircraft Damage: This denotes whether the aircraft sustained damage as a result of the encounter. Even minor damage can necessitate inspections and repairs for flight safety.
- Radome Strike: The radome houses various aircraft systems, such as weather radar and other critical instruments. A strike on the radome might affect these systems' functionality or compromise their accuracy, requiring inspection and potential maintenance.

From an aircraft systems perspective:
- Collision Warning Systems: If wildlife encounters are detected by sensors or radars, collision warning systems might alert the crew, prompting decisions like precautionary landings or aborted takeoffs to prevent damage or hazards.
- Flight Control Systems: Precautionary landings and aborted takeoffs might involve flight control systems
adjusting aircraft speed, trajectory, or initiating emergency protocols to ensure safety.- Damage Assessment Systems: After an encounter, onboard systems or post-flight inspections would
assess any damage sustained by the aircraft. Radome strikes might trigger system checks to ensure no critical instruments are compromised.
- Emergency Procedures and Protocols: Flight crews are trained in responding to wildlife encounters. They follow specific protocols for precautionary landings or aborted takeoffs based on the severity of the
encounter and the potential impact on flight safety.
Overall, aircraft systems play a crucial role in detecting, responding to, and mitigating the impact of wildlife encounters to ensure the safety of the flight, crew, passengers, and the aircraft itself.
This dataset seems to document instances related to potential aircraft encounters with foreign objects or
wildlife during flight. Here's an explanation based on the different categories provided:
Radome Damage: The radome is the protective cover housing various aircraft instruments, especially radar systems. Damage to the radome might affect the functionality of these critical instruments, necessitating inspection and potential repair.
Windshield Strike and Windshield Damage: This category specifically tracks strikes or damage to the windshield of the aircraft. Windshield strikes can be problematic, potentially leading to impairment of visibility or structural damage.
Nose Strike and Nose Damage: Strikes or damage to the nose of the aircraft. The nose is a critical aerodynamic component; damage here might affect flight performance or stability.
Interpreting this data from an aircraft systems perspective:
-Detection Systems: The aircraft might have systems like radar, sensors, or cameras that detect foreign objects or wildlife in the flight path. Strikes to the radome or windshield might indicate potential encounters with birds or debris.- Impact on Flight Systems: Damage to the radome, windshield, or nose can have varying effects on the
aircraft's systems, avionics, and structural integrity. They might prompt inspections, system checks, or, in
severe cases, the need for immediate maintenance.
- Safety and Response Protocols: Aircraft systems are equipped with protocols and emergency procedures for assessing damage, assessing potential risks to flight safety, and determining the need for immediate actions such as landing or diverting the flight.
- Flight Crew Awareness and Monitoring: Pilots are trained to monitor aircraft systems and respond appropriately to any indication of damage or potential issues with critical components like the radome, windshield, or nose.
The presence of strikes or damage to these components highlights potential risks to the aircraft's safety and functionality. These incidents often trigger post-flight inspections or maintenance to ensure the aircraft's continued airworthiness and safety for subsequent flights.
It appears this dataset documents potential strikes and subsequent damage to the engines of an aircraft. Here's an interpretation based on the provided data:
Engine X Strike and Damage: Each pair of columns relates to a specific engine (1 through 4) and indicates whether a strike occurred and if there was resulting damage.

Engine X Strike (0 or 1): Denotes whether a strike was recorded for a particular engine. A '1' signifies that an event of an engine strike was documented.
- Engine X Damage (0 or 1): Indicates if there was any damage observed after the strike. A '1' denotes that damage was recorded for a particular engine following the strike.
From an aircraft systems perspective:
- Engine Strikes: A strike against an engine can occur due to various reasons such as bird ingestion, foreign object damage, or even technical malfunctions. These events are usually recorded for further investigation and evaluation.- Engine Damage: A strike may or may not result in immediate damage to the engine. Damage
assessment is crucial as even minor damage can impact engine performance or safety, requiring inspection and potentially maintenance or repairs.
- Maintenance and Inspection: Any recorded engine strikes or damage would prompt inspection and assessment by maintenance crews to ensure that the engines remain in an airworthy condition for subsequent flights.
- Safety Protocols and Response: Strikes or potential damage to engines might trigger specific safety protocols, inspections, and even grounding of the aircraft for detailed checks and repairs before it's cleared for further flights.
The data recorded in this set is essential for maintaining the airworthiness and safety of the aircraft, ensuring that any issues related to engine strikes or potential damage are addressed promptly to maintain safe flight operations.
It seems like this dataset is tracking potential strikes and subsequent damage to various parts of an aircraft. Here's an interpretation based on the provided data:
Engine Ingested: Indicates whether any foreign object, like birds or debris, was ingested into the engine during flight. Ingestion can potentially cause serious damage to the engine.
Propeller Strike and Damage: Refers to strikes against the propeller of the aircraft. Damage to the propeller might impact the aircraft's performance or aerodynamics.
Wing or Rotor Strike and Damage: Records strikes and resulting damage to the wings or rotors. Damage to these parts can significantly affect the aircraft's maneuverability and lift.
Fuselage Strike and Damage: Tracks strikes and potential damage to the fuselage, the main body of the aircraft. Damage here might compromise structural integrity or aerodynamics.
From an aircraft systems perspective:- Engine Ingestion: Engine ingestion of foreign objects is a critical concern as it can lead to engine failure
or malfunctions. Aircraft systems monitor for such events and can trigger inspections or maintenance protocols.
- Propeller, Wing, Rotor, and Fuselage Damage: These elements constitute vital parts of the aircraft. Strikes and damages to these areas would require thorough inspections to assess the extent of the damage and ensure the aircraft's continued airworthiness.
- Safety Protocols and Maintenance: Any recorded strikes or damages to these critical parts would prompt inspections by maintenance crews. If substantial damage is observed, the aircraft might be grounded for repairs to ensure safe operations.
- Impact on Flight Operations: Depending on the severity of the recorded strikes or damages, it might necessitate alterations in flight plans or routes to land the aircraft safely for inspection or repairs.
The data emphasizes the importance of tracking and assessing potential strikes or damages to key aircraft components. Addressing these issues promptly is crucial to maintain flight safety and the airworthiness of the aircraft for subsequent operations.
This dataset appears to record instances related to potential strikes and resulting damage to various components of an aircraft during operations. Here's an interpretation based on the provided data:
Landing Gear Strike and Damage: Tracks incidents where there was a strike against the landing gear and

whether it resulted in subsequent damage. Damage to the landing gear can significantly affect the aircraft's ability to safely land.

Tail Strike and Damage: Records instances of strikes against the tail section of the aircraft and whether it caused any damage. Tail strikes can affect the aircraft's stability and structure.

Lights Strike and Damage: Indicates strikes against the aircraft lights and any resulting damage. Though not critical to flight, damage to lights might require maintenance for compliance with aviation regulations.Other Strike: Represents strikes that might affect other components not specified in the previous

categories. This could include strikes against parts not explicitly mentioned, necessitating further inspection.

From an aircraft systems perspective:

Safety and Maintenance: Strikes against critical parts such as the landing gear, tail, or lights might trigger maintenance checks or inspections to ensure the aircraft's continued airworthiness and safety for future flights.

Impact on Flight Operations: Tail strikes, landing gear strikes, or damage to critical components often prompt a detailed investigation to assess the extent of damage and its impact on the aircraft's ability to operate safely.

-Compliance and Regulations: Damage to lights, though not directly affecting flight safety, might require repairs to comply with aviation regulations, ensuring the aircraft is equipped with all necessary operational lights.

This data underscores the importance of recording and assessing strikes against different parts of an aircraft to ensure the overall safety and airworthiness of the aircraft. Addressing and rectifying any damages promptly is crucial for maintaining safe flight operations.

Here's an overview of the data:

Other Damage: Indicates whether any "other" type of damage was recorded (1 for damage, 0 for no damage).

Record ID: Unique identifiers associated with each incident record.

-Incident Year and Month: Records the year and month when each incident occurred.

- Incident Day: Day of the month when the incident occurred.

- Operator ID: ID representing the operator involved in the incident.- Operator: Name or designation of the operator.

- Aircraft: Type or model of the aircraft involved in the incident.
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Each entry seems to describe a separate aviation-related incident, noting the operator, aircraft, and the day of the incident. Understanding the context or having additional details about the nature of these incidents would be necessary to derive any specific conclusions or insights from this dataset.

- Aircraft Type: Type or category of the aircraft.

- Aircraft Make: Manufacturer of the aircraft.

- Aircraft Model: Specific model of the aircraft.

- Aircraft Mass: Mass of the aircraft.

- Engine Make: Manufacturer of the engine installed in the aircraft.

Engine Model: Specific model of the engine.

-Engines: Number of engines installed on the aircraft.

Engine Type:Denotes the type or category of the engine.

Engine Position (1-4): Indicates the position of each engine on the aircraft.

The engine positions, represented numerically from 1 to 4, likely correspond to different locations on the

aircraft where the engines are installed. The letters in the "Engine Type" column seem to categorize the

type or classification of the engines.

Understanding the engine layout and types can be crucial for maintenance, performance evaluation, and understanding the overall design and capabilities of different aircraft.

Logistic equation:

Accuracy: 0.9146516569984493

Coefficients: [-7.7981664327732e-06, -0.00012671383404183034, -2.7676694342795568e-05, 3.9071083403890076e-05, -0.0005505020747478244, -0.0012313052986683696, -0.0008827464912260792, -9.71703014627508e-05, -0.0012851103396767905, -0.0016968642502786515, -0.00019288263951214085, -1.8794970462084025e-05, -0.002795956894529782, -4.026177465987255e-05, -0.0003792210586843602, 5.4443198508801574e-05, 2.3367485758821776e-05, 5.602174514222509e-05, 1.4447540771927367e-07, 0.0004555257544437115, 0.000247704801597267, 0.0007475314427399769, 0.0001938310472372908, -3.664713303510699e-05, -0.0002460512875798479, -9.487615145886752e-05, -5.560009549114378e-05, 0.002806561151770016, -0.0009110431976085044, 0.0002580663090000015505, -0.0062911564021939075, 0.0010559750166115032, 2.347165696490519e-05, 1.8166927865119812e-05, 5.247218235053167e-07, 1.465858649652281e-06, 3.11083148856621e-06, 4.2458300311747616e-05, -2.902953965759889e-05, 2.542797209351327e-05, -1.3244271552387492e-05, 2.8996707014846826e-05, 5.983227069558991e-05, 6.876440728275747e-05, 4.8157242481395836e-05, 5.606402919858233e-05, 4.122390246971582e-06, 4.501022455798781e-06, 1.914693069551168e-06, 2.0937781577934844e-06, 9.342643686100142e-05, 1.2709737422643224e-05, 1.393872720765026e-05, 8.17357642367974e-05, 0.00011049199267050107, -1.4656746075253825e-05, 2.0582082189135984e-05, 1.2303552312153192e-05, 2.5405907325020063e-05, 1.8701980889306024e-05, 1.874874596956836e-05, 2.003844169911011e-05, 2.0094285323054596e-05, 1.3107480204826981e-05, 4.084637442610634e-05]

Intercept: 5.900325362946771e-06

Logistic Equation:

P(Aircraft Damage=1) = 1 / (1 + e^(-(5.900325362946771e-06 + -0.000007798*Record ID + -0.000126714*Incident Year + -0.000027677*Incident Month + 0.000039071*Incident Day + -0.000550502*Operator ID + -0.001231305*Operator + -0.000882746*Aircraft + -0.000097170*Aircraft Type + -0.001285110*Aircraft Make + -0.001696864*Aircraft Model + -0.000192883*Aircraft Mass + -0.000018795*Engine Make + -0.002795957*Engine Model + -0.000040262*Engines + -0.000379221*Engine Type + 0.000054443*Engine1 Position + 0.000023367*Engine2 Position + 0.000056022*Engine3 Position + 0.000000144*Engine4 Position + 0.000455526*Airport ID + 0.000247705*Airport + 0.000747531*State + 0.000193831*FAA Region + -0.000036647*Warning Issued + -0.000246051*Flight Phase + -0.000094876*Visibility + -0.000055600*Precipitation + 0.002806561*Height + -0.000911043*Speed + 0.000258066*Distance + -0.006291156*Species ID + 0.001055975*Species Name + 0.000023472*Species Quantity + 0.000018167*Flight Impact + 0.000000525*Fatalities + 0.000001466*Injuries + 0.000003111*Radome Strike + 0.000042458*Radome Damage + -0.000029030*Windshield Strike + 0.000025428*Windshield Damage + -0.000013244*Nose Strike + 0.000028997*Nose Damage + 0.000059832*Engine1 Strike + 0.000068764*Engine1 Damage + 0.000048157*Engine2 Strike + 0.000056064*Engine2 Damage + 0.000004122*Engine3 Strike + 0.000004501*Engine3 Damage + 0.000001915*Engine4 Strike + 0.000002094*Engine4 Damage + 0.000093426*Engine Ingested + 0.000012710*Propeller Strike + 0.000013939*Propeller Damage + 0.000081736*Wing or Rotor Strike + 0.000110492*Wing or Rotor Damage + -0.000014657*Fuselage Strike + 0.000020582*Fuselage Damage + 0.000012304*Landing Gear Strike + 0.000025406*Landing Gear Damage + 0.000018702*Tail Strike + 0.000018749*Tail Damage + 0.000020038*Lights Strike +

0.000020094*Lights Damage + 0.000013107*Other Strike + 0.000040846*Other Damage))**This equation will provide the probability of aircraft damage prior takeoff taking all other values through infrared waves measurements and the given inputs will be also cross checked through another method predicting another variables used in the target 'aircraft damage' prior aircraft takeoff and also for further research.**

Some part of the engine or fuel system was said to have failed in 35 percent of the accidents, and component fatigue was noted in 23 percent of the accidents. Flight control or structural SCFM was involved in 54 of the accidents. Of these, 46 percent were related to maintenance errors.

Linear Equation:
Aircraft Damage = -2.681247816 + 0.001438207 * Incident Year + -0.000394664 * Incident Month + 0.000001336 * Incident Day + 0.000005790 * Operator ID + -0.000023187 * Operator + -0.000002735 * Aircraft + -0.011297014 * Aircraft Type + 0.000032243 * Aircraft Make + -0.000012939 * Aircraft Model + -0.013000528 * Aircraft Mass + 0.000123940 * Engine Make + -0.000054762 * Engine Model + -0.002109897 * Engines + -0.001902435 * Engine Type + 0.000383374 * Engine1 Position + -0.002649837 * Engine2 Position + -0.001752618 * Engine3 Position + 0.001225264 * Engine4 Position + 0.000003036 * Airport ID + 0.000001544 * Airport + 0.000107923 * State + 0.000638751 * FAA Region + -0.001073069 * Warning Issued + -0.001021590 * Flight Phase + -0.001023668 * Visibility + 0.000083976 * Precipitation + 0.000002968 * Height + 0.000093850 * Speed + 0.000161562 * Distance + -0.000053604 * Species ID + -0.000003571 * Species Name + -0.006613904 * Species Quantity + 0.001279420 * Flight Impact + -0.362994490 * Fatalities + -0.005033609 * Injuries + -0.032793744 * Radome Strike + 0.720495262 * Radome Damage + -0.042377466 * Windshield Strike + 0.657314745 * Windshield Damage + -0.029799336 * Nose Strike + 0.417047672 * Nose Damage + -0.036186778 * Engine1 Strike + 0.700129224 * Engine1 Damage + -0.046591385 * Engine2 Strike + 0.751009871 * Engine2 Damage + -0.031298272 * Engine3 Strike + 0.736732983 * Engine3 Damage + -0.019333402 * Engine4 Strike + 0.727113981 * Engine4 Damage + 0.061404014 * Engine Ingested + 0.003693664 * Propeller Strike + 0.092123499 * Propeller Damage + -0.028232096 * Wing or Rotor Strike + 0.749465899 * Wing or Rotor Damage + -0.031876423 * Fuselage Strike + 0.195681663 * Fuselage Damage + -0.020647183 * Landing Gear Strike + 0.363961043 * Landing Gear Damage + 0.062028459 * Tail Strike + 0.352900021 * Tail Damage + 0.280203353 * Lights Strike + 0.237192256 * Lights Damage + -0.043932138 * Other Strike + 0.666786499 * Other Damage
Accuracy: 0.9872494400091896

Polynomial Equation:
coefficient [2.30535578e-06 6.87479882e-02 -8.01386788e-03 ... -7.30537878e-02 1.04807864e-01 1.45455842e-01]
intercept 0.8068407278632641
Equation:
Aircraft Damage= 0.806840728 + 0.068747988 * Incident Year + -0.008013868 * Incident Month + 0.000780327 * Incident Day + -0.024813391 * Operator ID + 0.029162988 * Operator + 0.000236986 * Aircraft + 0.000085984 * Aircraft Type + -0.002301735 * Aircraft Make + -0.000137207 * Aircraft Model + 0.248861779 * Aircraft Mass + -0.012891359 * Engine Make + -0.017859949 * Engine Model + 0.104119972 * Engines + 0.391613217 * Engine Type + 0.338367098 * Engine1 Position + -0.717494584 * Engine2 Position + -0.402442662 * Engine3 Position + -0.208520187 * Engine4 Position + -0.000063941 * Airport ID + -0.000060834 * Airport + -0.000605145 * State + 0.004483331 * FAA Region +

0.167281222 * Warning Issued + -0.002682389 * Flight Phase + -0.048254439 * Visibility + -0.486107823 * Precipitation + 0.000112667 * Height + 0.019071296 * Speed + -0.000871889 * Distance + 0.000249538 * Species ID + 0.000124084 * Species Name + -0.252562771 * Species Quantity + -0.039928089 * Flight Impact + 0.261395050 * Fatalities + -0.416336210 * Injuries + 0.106272789 * Radome Strike + 1.577029297 * Radome Damage + 0.228503987 * Windshield Strike + 0.223200344 * Windshield Damage + 0.000075512 * Nose Strike + 0.237697126 * Nose Damage + 0.079816568 * Engine1 Strike + 0.250397040 * Engine1Damage + -0.926443572 * Engine2 Strike + 0.276430055 * Engine2 Damage + -0.000337945 *
Engine3 Strike + 0.251998974 * Engine3 Damage + -0.014480536 * Engine4 Strike + 0.179350602 * Engine4 Damage + 0.051895427 * Engine Ingested + 0.087286732 * Propeller Strike + 0.020258461 * Propeller Damage + -0.128816367 * Wing or Rotor Strike + 0.583718271 * Wing or Rotor Damage + 0.010392681 * Fuselage Strike + 0.335536967 * Fuselage Damage + 0.459445956 * Landing Gear Strike + 0.262087775 * Landing Gear Damage + -0.004189420 * Tail Strike + 0.153205457 * Tail Damage + 0.359587695 * Lights Strike + 0.122949430 * Lights Damage + -0.073052190 * Other Strike + 0.145455564 * Other Damage + 0.000000000 * Record ID^2 + -0.000000017 * Record ID^1*Incident Year^1 + 0.000000019 * Record ID^1*Incident Month^1 + -0.000000001 * Record ID^1*Incident Day^1 + -0.000000000 * Record ID^1*Operator ID^1 + -0.000000000 * Record ID^1*Operator^1 + -0.000000000 * Record ID^1*Aircraft^1 + 0.000000097 * Record ID^1*Aircraft Type^1 + -0.000000002 * Record ID^1*Aircraft Make^1 + -0.000000002 * Record ID^1*Aircraft Model^1 + 0.000000030 * Record ID^1*Aircraft Mass^1 + 0.000000001 * Record ID^1*Engine Make^1 + -0.000000002 * Record ID^1*Engine Model^1 + -0.000000107 * Record ID^1*Engines^1 + 0.000000062 * Record ID^1*Engine Type^1 + -0.000000037 * Record ID^1*Engine1 Position^1 + 0.000000097 * Record ID^1*Engine2 Position^1 + 0.000000033 * Record ID^1*Engine3 Position^1 + -0.000000197 * Record ID^1*Engine4 Position^1 + 0.000000000 * Record ID^1*Airport ID^1 + -0.000000000 * Record ID^1*Airport^1 + -0.000000002 * Record ID^1*State^1 + -0.000000010 * Record ID^1*FAA Region^1 + 0.000000069 * Record ID^1*Warning Issued^1 + 0.000000002 * Record ID^1*Flight Phase^1 + -0.000000016 * Record ID^1*Visibility^1 + -0.000000021 * Record ID^1*Precipitation^1 + -0.000000000 * Record ID^1*Height^1 + 0.000000001 * Record ID^1*Speed^1 + -0.000000000 * Record ID^1*Distance^1 + 0.000000001 * Record ID^1*Species ID^1 + 0.000000000 * Record ID^1*Species Name^1 + -0.000000066 * Record ID^1*Species Quantity^1 + 0.000000012 * Record ID^1*Flight Impact^1 + -0.000000285 * Record ID^1*Fatalities^1 + -0.000000181 * Record ID^1*Injuries^1 + 0.000000010 * Record ID^1*Radome Strike^1 + 0.000000856 * Record ID^1*Radome Damage^1 + 0.000000099 * Record ID^1*Windshield Strike^1 + 0.000000028 * Record ID^1*Windshield Damage^1 + 0.000000017 * Record ID^1*Nose Strike^1 + -0.000000341 * Record ID^1*Nose Damage^1 + -0.000000166 * Record ID^1*Engine1 Strike^1 + -0.000000079 * Record ID^1*Engine1 Damage^1 + -0.000000467 * Record ID^1*Engine2 Strike^1 + 0.000000776 * Record ID^1*Engine2 Damage^1 + -0.000000094 * Record ID^1*Engine3 Strike^1 + -0.000000104 * Record ID^1*Engine3 Damage^1 + -0.000000235 * Record ID^1*Engine4 Strike^1 + -0.000000392 * Record ID^1*Engine4 Damage^1 + 0.000000285 * Record ID^1*Engine Ingested^1 + 0.000000427 * Record ID^1*Propeller Strike^1 + 0.000001530 * Record ID^1*Propeller Damage^1 + -0.000000057 * Record ID^1*Wing or Rotor Strike^1 + 0.000000563 * Record ID^1*Wing or Rotor Damage^1 + 0.000000037 * Record ID^1*Fuselage Strike^1 + -0.000001894 * Record

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Incident Day^1*Engine2 Strike^1 + -0.000268793 * Incident Day^1*Engine2 Damage^1 + -0.001662856 * Incident Day^1*Engine3 Strike^1 + 0.001416444 * Incident Day^1*Engine3 Damage^1 + 0.001492547 * Incident Day^1*Engine4 Strike^1 + -0.001252082 * Incident Day^1*Engine4 Damage^1 + -0.000252307 * Incident Day^1*Engine Ingested^1 + 0.000052128 * Incident Day^1*Propeller Strike^1 + 0.000804364 * Incident Day^1*Propeller Damage^1 + -0.000036122 * Incident Day^1*Wing or Rotor Strike^1 + -0.000108830 * Incident Day^1*Wing or Rotor Damage^1 + -0.000028220 * Incident Day^1*Fuselage Strike^1 + -0.000991399 * Incident Day^1*Fuselage Damage^1 + -0.000034414 * Incident Day^1*Landing Gear Strike^1 + -0.000025527 * Incident Day^1*Landing Gear Damage^1 + 0.000442615 * Incident Day^1*Tail Strike^1 + -0.000393517 * Incident Day^1*Tail Damage^1 + -0.001142587 * Incident Day^1*Lights Strike^1 + 0.003514252 * Incident Day^1*Lights Damage^1 + -0.000094608 * Incident Day^1*Other Strike^1 + 0.000673107 * Incident Day^1*Other Damage^1 + 0.000000001 * Operator ID^2 + -0.000000008 * Operator ID^1*Operator^1 + 0.000000013 * Operator ID^1*Aircraft^1 + 0.000010048 * Operator ID^1*Aircraft Type^1 + -0.000000515 * Operator ID^1*Aircraft Make^1 + 0.000000042 * Operator ID^1*Aircraft Model^1 + 0.000011029 * Operator ID^1*Aircraft Mass^1 + 0.000000108 * Operator ID^1*Engine Make^1 + -0.000000129 * Operator ID^1*Engine Model^1 + -0.000017786 * Operator ID^1*Engines^1 + -0.000002318 * Operator ID^1*Engine Type^1 + 0.000005607 * Operator ID^1*Engine1 Position^1 + -0.000007814 * Operator ID^1*Engine2 Position^1 + -0.000006643 * Operator ID^1*Engine3 Position^1 + 0.000013532 * Operator ID^1*Engine4 Position^1 + -0.000000005 * Operator ID^1*Airport ID^1 + -0.000000002 * Operator ID^1*Airport^1 + -0.000000102 * Operator ID^1*State^1 + 0.000000369 * Operator ID^1*FAA Region^1 + 0.000001481 * Operator ID^1*Warning Issued^1 + 0.000000209 * Operator ID^1*Flight Phase^1 + 0.000001357 * Operator ID^1*Visibility^1 + -0.000001059 * Operator ID^1*Precipitation^1 + -0.000000007 * Operator ID^1*Height^1 + 0.000000011 * Operator ID^1*Speed^1 + 0.000000068 * Operator ID^1*Distance^1 + -0.000000024 * Operator ID^1*Species ID^1 + -0.000000008 * Operator ID^1*Species Name^1 + -0.000001300 * Operator ID^1*Species Quantity^1 + -0.000001623 * Operator ID^1*Flight Impact^1 + 0.004690882 * Operator ID^1*Fatalities^1 + 0.000198643 * Operator ID^1*Injuries^1 + -0.000007503 * Operator ID^1*Radome Strike^1 + -0.000042285 * Operator ID^1*Radome Damage^1 + -0.000005014 * Operator ID^1*Windshield Strike^1 + -0.000044768 * Operator ID^1*Windshield Damage^1 + -0.000002885 * Operator ID^1*Nose Strike^1 + 0.000002800 * Operator ID^1*Nose Damage^1 + -0.000007275 * Operator ID^1*Engine1 Strike^1 + -0.000059065 * Operator ID^1*Engine1 Damage^1 + -0.000010634 * Operator ID^1*Engine2 Strike^1 + 0.000008486 * Operator ID^1*Engine2 Damage^1 + 0.000134003 * Operator

ID^1*Engine3 Strike^1 + -0.000119507 * Operator ID^1*Engine3 Damage^1 + 0.000190748 * Operator ID^1*Engine4 Strike^1 + -0.000124774 * Operator ID^1*Engine4 Damage^1 + 0.000007415 * Operator ID^1*Engine Ingested^1 + -0.000005495 * Operator ID^1*Propeller Strike^1 + 0.000372155 * Operator ID^1*Propeller Damage^1 + -0.000006806 * Operator ID^1*Wing or Rotor Strike^1 + -0.000008834 * Operator ID^1*Wing or Rotor Damage^1 + -0.000007115 * Operator ID^1*Fuselage Strike^1 + 0.000065438 * Operator ID^1*Fuselage Damage^1 + -0.000002052 * Operator ID^1*Landing Gear Strike^1 + 0.000034934 * Operator ID^1*Landing Gear Damage^1 + -0.000060362 * Operator ID^1*Tail Strike^1 + 0.000010136 * Operator ID^1*Tail Damage^1 + 0.000005299 * Operator ID^1*Lights Strike^1 + -0.000005416 * Operator ID^1*Lights Damage^1 + -0.000005252 * Operator ID^1*Other Strike^1 + -0.000052471 * Operator ID^1*Other Damage^1 + -0.000000012 * Operator^2 + -0.000000002 * Operator^1*Aircraft^1 + -0.000009964 * Operator^1*Aircraft Type^1 + 0.000000457 * Operator^1*Aircraft Make^1 + -0.000000030 * Operator^1*Aircraft Model^1 + -0.000001735 * Operator^1*Aircraft Mass^1 + -0.000000151 * Operator^1*Engine Make^1 + 0.000000149 * Operator^1*Engine Model^1 + 0.000010625 * Operator^1*Engines^1 + -0.000001899 * Operator^1*Engine Type^1 + -0.000001408 * Operator^1*Engine1 Position^1 + 0.000000857 * Operator^1*Engine2 Position^1 + 0.000003680 * Operator^1*Engine3 Position^1 + -0.000006946 * Operator^1*Engine4 Position^1 + -0.000000002 * Operator^1*Airport ID^1 + -0.000000003 * Operator^1*Airport^1 + 0.000000159 * Operator^1*State^1 + 0.000000124 * Operator^1*FAA Region^1 + 0.000000916 * Operator^1*Warning Issued^1 + -0.000000160 * Operator^1*Flight Phase^1 + 0.000000280 * Operator^1*Visibility^1 + 0.000000409 * Operator^1*Precipitation^1 + -0.000000001 * Operator^1*Height^1 + -0.000000032 * Operator^1*Speed^1 + -0.000000044 * Operator^1*Distance^1 + 0.000000001 * Operator^1*Species ID^1 + 0.000000003 * Operator^1*Species Name^1 + 0.000005045 * Operator^1*Species Quantity^1 + 0.000002321 * Operator^1*Flight Impact^1 + -0.005554633 * Operator^1*Fatalities^1 + -0.000199371 * Operator^1*Injuries^1 + 0.000004974 * Operator^1*Radome Strike^1 + 0.000031953 * Operator^1*Radome Damage^1 + 0.000011414 * Operator^1*Windshield Strike^1 + 0.000053132 * Operator^1*Windshield Damage^1 + 0.000002507 * Operator^1*Nose Strike^1 + 0.000021104 * Operator^1*Nose Damage^1 + 0.000006276 * Operator^1*Engine1 Strike^1 + 0.000004263 * Operator^1*Engine1 Damage^1 + 0.000017949 * Operator^1*Engine2 Strike^1 + -0.000047767 * Operator^1*Engine2 Damage^1 + -0.000082572 * Operator^1*Engine3 Strike^1 + 0.000073411 * Operator^1*Engine3 Damage^1 + -0.000107878 * Operator^1*Engine4 Strike^1 + 0.000028003 * Operator^1*Engine4 Damage^1 + 0.000001567 * Operator^1*Engine Ingested^1 + 0.000008069 * Operator^1*Propeller Strike^1 + -0.000525608 * Operator^1*Propeller Damage^1 + 0.000006349 * Operator^1*Wing or Rotor Strike^1 + 0.000017568 * Operator^1*Wing or Rotor Damage^1 + 0.000012971 * Operator^1*Fuselage Strike^1 + -0.000128491 * Operator^1*Fuselage Damage^1 + 0.000007138 * Operator^1*Landing Gear Strike^1 + -0.000053690 * Operator^1*Landing Gear Damage^1 + 0.000016798 * Operator^1*Tail Strike^1 + 0.000123107 * Operator^1*Tail Damage^1 + -0.000083888 * Operator^1*Lights Strike^1 + 0.000075295 * Operator^1*Lights Damage^1 + 0.000006796 * Operator^1*Other Strike^1 + 0.000052188 * Operator^1*Other Damage^1 + 0.000000111 * Aircraft^2 + -0.000040072 * Aircraft^1*Aircraft Type^1 + -0.000000371 * Aircraft^1*Aircraft Make^1 + 0.000000000 * Aircraft^1*Aircraft Model^1 + -0.000033739 * Aircraft^1*Aircraft Mass^1 + -0.000000759 * Aircraft^1*Engine Make^1 + -0.000000022 * Aircraft^1*Engine Model^1 + 0.000025529 * Aircraft^1*Engines^1 + 0.000008454 * Aircraft^1*Engine Type^1 +

0.000001087 * Aircraft^1*Engine1 Position^1 + -0.000006158 * Aircraft^1*Engine2 Position^1 + 0.000000861 * Aircraft^1*Engine3 Position^1 + -0.000012755 * Aircraft^1*Engine4 Position^1 + 0.000000002 * Aircraft^1*Airport ID^1 + -0.000000004 * Aircraft^1*Airport^1 + -0.000000099 * Aircraft^1*State^1 + -0.000002193 * Aircraft^1*FAA Region^1 + 0.000004129 * Aircraft^1*Warning Issued^1 + 0.000001404 * Aircraft^1*Flight Phase^1 + 0.000002428 * Aircraft^1*Visibility^1 + 0.000000391 * Aircraft^1*Precipitation^1 + -0.000000017 * Aircraft^1*Height^1 + -0.000000087 * Aircraft^1*Speed^1 + 0.000000082 * Aircraft^1*Distance^1 + 0.000000036 * Aircraft^1*Species ID^1 + 0.000000047 * Aircraft^1*Species Name^1 + 0.000004350 * Aircraft^1*Species Quantity^1 + 0.000003707 * Aircraft^1*Flight Impact^1 + 0.000002585 * Aircraft^1*Fatalities^1 + -0.000036645 *Aircraft^1*Injuries^1 + -0.000012544 * Aircraft^1*Radome Strike^1 + -0.000065688 * Aircraft^1*Radome Damage^1 + -0.000008071 * Aircraft^1*Windshield Strike^1 + 0.000079455 * Aircraft^1*Windshield Damage^1 + -0.000014363 * Aircraft^1*Nose Strike^1 + -0.000030710 * Aircraft^1*Nose Damage^1 + 0.000010140 * Aircraft^1*Engine1 Strike^1 + 0.000054753 * Aircraft^1*Engine1 Damage^1 + -0.000058636 * Aircraft^1*Engine2 Strike^1 + 0.000105174 * Aircraft^1*Engine2 Damage^1 + -0.000145843 * Aircraft^1*Engine3 Strike^1 + 0.000227592 * Aircraft^1*Engine3 Damage^1 + 0.000034784 * Aircraft^1*Engine4 Strike^1 + -0.000085584 * Aircraft^1*Engine4 Damage^1 + -0.000026116 * Aircraft^1*Engine Ingested^1 + -0.000001784 * Aircraft^1*Propeller Strike^1 + 0.000487276 * Aircraft^1*Propeller Damage^1 + 0.000004557 * Aircraft^1*Wing or Rotor Strike^1 + -0.000060048 * Aircraft^1*Wing or Rotor Damage^1 + -0.000006628 * Aircraft^1*Fuselage Strike^1 + 0.000024665 * Aircraft^1*Fuselage Damage^1 + -0.000005029 * Aircraft^1*Landing Gear Strike^1 + 0.000063822 * Aircraft^1*Landing Gear Damage^1 + 0.000053618 * Aircraft^1*Tail Strike^1 + 0.000289235 * Aircraft^1*Tail Damage^1 + -0.000181030 * Aircraft^1*Lights Strike^1 + 0.000441455 * Aircraft^1*Lights Damage^1 + -0.000001231 * Aircraft^1*Other Strike^1 + -0.000028909 * Aircraft^1*Other Damage^1 + 0.006498147 * Aircraft Type^2 + 0.000093619 * Aircraft Type^1*Aircraft Make^1 + -0.000043097 * Aircraft Type^1*Aircraft Model^1 + -0.000256622 * Aircraft Type^1*Aircraft Mass^1 + 0.000039080 * Aircraft Type^1*Engine Make^1 + -0.000122562 * Aircraft Type^1*Engine Model^1 + 0.006029593 * Aircraft Type^1*Engines^1 + -0.001378370 * Aircraft Type^1*Engine Type^1 + -0.006357733 * Aircraft Type^1*Engine1 Position^1 + 0.003877902 * Aircraft Type^1*Engine2 Position^1 + 0.000664106 * Aircraft Type^1*Engine3 Position^1 + 0.000332065 * Aircraft Type^1*Engine4 Position^1 + -0.000000159 * Aircraft Type^1*Airport ID^1 + -0.000000774 * Aircraft Type^1*Airport^1 + 0.000002754 * Aircraft Type^1*State^1 + -0.000616927 * Aircraft Type^1*FAA Region^1 + 0.003292595 * Aircraft Type^1*Warning Issued^1 + -0.000603283 * Aircraft Type^1*Flight Phase^1 + -0.001458776 * Aircraft Type^1*Visibility^1 + 0.000479366 * Aircraft Type^1*Precipitation^1 + 0.000004970 * Aircraft Type^1*Height^1 + -0.000009147 * Aircraft Type^1*Speed^1 + -0.000058275 * Aircraft Type^1*Distance^1 + 0.000033093 * Aircraft Type^1*Species ID^1 + 0.000009480 * Aircraft Type^1*Species Name^1 + 0.001292957 * Aircraft Type^1*Species Quantity^1 + 0.000711163 * Aircraft Type^1*Flight Impact^1 + -0.000314021 * Aircraft Type^1*Fatalities^1 + 0.004542380 * Aircraft Type^1*Injuries^1 + 0.004995656 * Aircraft Type^1*Radome Strike^1 + -0.048464369 * Aircraft Type^1*Radome Damage^1 + -0.001186416 * Aircraft Type^1*Windshield Strike^1 + 0.012416775 * Aircraft Type^1*Windshield Damage^1 + -0.002944857 * Aircraft Type^1*Nose Strike^1 + -0.000246222 * Aircraft Type^1*Nose Damage^1 + 0.031122724 * Aircraft Type^1*Engine1 Strike^1 + -0.014622025 * Aircraft Type^1*Engine1 Damage^1 +

0.019386737 * Aircraft Type^1*Engine2 Strike^1 + -0.044323310 * Aircraft Type^1*Engine2 Damage^1 + 0.012378159 * Aircraft Type^1*Engine3 Strike^1 + 0.027629351 * Aircraft Type^1*Engine3 Damage^1 + -0.026626092 * Aircraft Type^1*Engine4 Strike^1 + -0.000000024 * Aircraft Type^1*Engine4 Damage^1 + -0.017882700 * Aircraft Type^1*Engine Ingested^1 + 0.000481631 * Aircraft Type^1*Propeller Strike^1 + -0.073601484 * Aircraft Type^1*Propeller Damage^1 + 0.010812259 * Aircraft Type^1*Wing or Rotor Strike^1 + -0.019842471 * Aircraft Type^1*Wing or Rotor Damage^1 + -0.004463115 * Aircraft Type^1*Fuselage Strike^1 + 0.055487572 * Aircraft Type^1*Fuselage Damage^1 + 0.006356939 * Aircraft Type^1*Landing Gear Strike^1 + -0.067744951 * Aircraft Type^1*Landing Gear Damage^1 + 0.017631621 * Aircraft Type^1*Tail Strike^1 + -0.075698008 * Aircraft Type^1*Tail Damage^1 + -0.029246403 * Aircraft Type^1*Lights Strike^1 + 0.030326955 * Aircraft Type^1*Lights Damage^1 + 0.002230838 * Aircraft Type^1*Other Strike^1 + 0.005622268 * Aircraft Type^1*Other Damage^1 + -0.000002132 * Aircraft Make^2 + 0.000000493 * Aircraft Make^1*Aircraft Model^1 + 0.000196032 * Aircraft Make^1*Aircraft Mass^1 + -0.000001404 * Aircraft Make^1*Engine Make^1 + 0.000001042 * Aircraft Make^1*Engine Model^1 + -0.000021545 * Aircraft Make^1*Engines^1 + -0.000044772 * Aircraft Make^1*Engine Type^1 + -0.000030093 * Aircraft Make^1*Engine1 Position^1 + 0.000103893 * Aircraft Make^1*Engine2 Position^1 + 0.000025929 * Aircraft Make^1*Engine3 Position^1 + -0.000058638 * Aircraft Make^1*Engine4 Position^1 + -0.000000023 * Aircraft Make^1*Airport ID^1 + 0.000000019 * Aircraft Make^1*Airport^1 + 0.000001636 * Aircraft Make^1*State^1 + 0.000015306 * Aircraft Make^1*FAA Region^1 + -0.000010779 * Aircraft Make^1*Warning Issued^1 + -0.000005934 * Aircraft Make^1*Flight Phase^1 + 0.000009576 * Aircraft Make^1*Visibility^1 + -0.000017878 * Aircraft Make^1*Precipitation^1 + -0.000000142 * Aircraft Make^1*Height^1 + 0.000000527 * Aircraft Make^1*Speed^1 + 0.000000866 * Aircraft Make^1*Distance^1 + -0.000000387 * Aircraft Make^1*Species ID^1 + -0.000000257 * Aircraft Make^1*Species Name^1 + -0.000031679 * Aircraft Make^1*Species Quantity^1 + -0.000052528 * Aircraft Make^1*Flight Impact^1 + 0.000069807 * Aircraft Make^1*Fatalities^1 + 0.000317701 * Aircraft Make^1*Injuries^1 + -0.000042854 * Aircraft Make^1*Radome Strike^1 + -0.000203657 * Aircraft Make^1*Radome Damage^1 + 0.000015168 * Aircraft Make^1*Windshield Strike^1 + -0.000534601 * Aircraft Make^1*Windshield Damage^1 + 0.000055467 * Aircraft Make^1*Nose Strike^1 + 0.000593929 * Aircraft Make^1*Nose Damage^1 + 0.000131319 * Aircraft Make^1*Engine1 Strike^1 + -0.000187539 * Aircraft Make^1*Engine1 Damage^1 + 0.000379970 * Aircraft Make^1*Engine2 Strike^1 + -0.000474221 * Aircraft Make^1*Engine2 Damage^1 + 0.000783558 * Aircraft Make^1*Engine3 Strike^1 + -0.001164895 * Aircraft Make^1*Engine3 Damage^1 + 0.000297987 * Aircraft Make^1*Engine4 Strike^1 + -0.000091214 * Aircraft Make^1*Engine4 Damage^1 + -0.000238450 * Aircraft Make^1*Engine Ingested^1 + 0.000002751 * Aircraft Make^1*Propeller Strike^1 + -0.003231040 * Aircraft Make^1*Propeller Damage^1 + -0.000018401 * Aircraft Make^1*Wing or Rotor Strike^1 + 0.000019606 * Aircraft Make^1*Wing or Rotor Damage^1 + 0.000045711 * Aircraft Make^1*Fuselage Strike^1 + -0.001098765 * Aircraft Make^1*Fuselage Damage^1 + -0.000028644 * Aircraft Make^1*Landing Gear Strike^1 + 0.000159731 * Aircraft Make^1*Landing Gear Damage^1 + -0.000128463 * Aircraft Make^1*Tail Strike^1 + -0.002782681 * Aircraft Make^1*Tail Damage^1 + -0.000413687 * Aircraft Make^1*Lights Strike^1 + -0.000507229 * Aircraft Make^1*Lights Damage^1 + -0.000006869 * Aircraft Make^1*Other Strike^1 + -0.000069923 * Aircraft Make^1*Other Damage^1 + -0.000000080 *

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+ 0.000866638 * Aircraft Mass^1*Injuries^1 + 0.004267195 * Aircraft Mass^1*Radome Strike^1 + -0.001025026 * Aircraft Mass^1*Radome Damage^1 + 0.004382369 * Aircraft Mass^1*Windshield Strike^1 + 0.007260915 * Aircraft Mass^1*Windshield Damage^1 + 0.001903672 * Aircraft Mass^1*Nose Strike^1 + 0.003657564 * Aircraft Mass^1*Nose Damage^1 + -0.004543816 * Aircraft Mass^1*Engine1 Strike^1 + 0.019298689 * Aircraft Mass^1*Engine1 Damage^1 + 0.005566184 * Aircraft Mass^1*Engine2 Strike^1 + 0.005522608 * Aircraft Mass^1*Engine2 Damage^1 + -0.014097977 * Aircraft Mass^1*Engine3 Strike^1 + 0.022599240 * Aircraft Mass^1*Engine3 Damage^1 + 0.015570338 * Aircraft Mass^1*Engine4 Strike^1 + -0.021344516 * Aircraft Mass^1*Engine4 Damage^1 + -0.001477874 * Aircraft Mass^1*Engine Ingested^1 + -0.006570538 * AircraftMass^1*Propeller Strike^1 + -0.007646724 * Aircraft Mass^1*Propeller Damage^1 + 0.007381945 * Aircraft Mass^1*Wing or Rotor Strike^1 + -0.004852286 * Aircraft Mass^1*Wing or Rotor Damage^1 + 0.000772695 * Aircraft Mass^1*Fuselage Strike^1 + 0.109040842 * Aircraft Mass^1*Fuselage Damage^1 + 0.004266161 * Aircraft Mass^1*Landing Gear Strike^1 + -0.013331929 * Aircraft Mass^1*Landing Gear Damage^1 + -0.000058620 * Aircraft Mass^1*Tail Strike^1 + 0.035528969 * Aircraft Mass^1*Tail Damage^1 + -0.029708325 * Aircraft Mass^1*Lights Strike^1 + 0.058113453 * Aircraft Mass^1*Lights Damage^1 + 0.005844626 * Aircraft Mass^1*Other Strike^1 + 0.005145242 * Aircraft Mass^1*Other Damage^1 + -0.000003137 * Engine Make^2 + -0.000000802 * Engine Make^1*Engine Model^1 + 0.000415479 * Engine Make^1*Engines^1 + -0.000129493 * Engine Make^1*Engine Type^1 + 0.000030411 * Engine Make^1*Engine1 Position^1 + -0.000002690 * Engine Make^1*Engine2 Position^1 + 0.000015768 * Engine Make^1*Engine3 Position^1 + 0.000190110 * Engine Make^1*Engine4 Position^1 + -0.000000080 * Engine Make^1*Airport ID^1 + 0.000000020 * Engine Make^1*Airport^1 + -0.000000970 * Engine Make^1*State^1 + 0.000007647 * Engine Make^1*FAA Region^1 + -0.000050268 * Engine Make^1*Warning Issued^1 + -0.000003738 * Engine Make^1*Flight Phase^1 + -0.000017495 * Engine Make^1*Visibility^1 + 0.000000768 * Engine Make^1*Precipitation^1 + 0.000000039 * Engine Make^1*Height^1 + 0.000000419 * Engine Make^1*Speed^1 + 0.000000708 * Engine Make^1*Distance^1 + 0.000000295 * Engine Make^1*Species ID^1 + -0.000000166 * Engine Make^1*Species Name^1 + -0.000019884 * Engine Make^1*Species Quantity^1 + 0.000029308 * Engine Make^1*Flight Impact^1 + 0.001848911 * Engine Make^1*Fatalities^1 + 0.000381407 * Engine Make^1*Injuries^1 + 0.000034060 * Engine Make^1*Radome Strike^1 + 0.000507952 * Engine Make^1*Radome Damage^1 + 0.000137715 * Engine Make^1*Windshield Strike^1 + 0.000632786 * Engine Make^1*Windshield Damage^1 + 0.000097414 * Engine Make^1*Nose Strike^1 + -0.000575141 * Engine Make^1*Nose Damage^1 + 0.000313547 * Engine Make^1*Engine1 Strike^1 + -0.000181983 * Engine Make^1*Engine1 Damage^1 + 0.000216288 * Engine Make^1*Engine2 Strike^1 + 0.001192566 * Engine Make^1*Engine2 Damage^1 + 0.000723568 * Engine Make^1*Engine3 Strike^1 + -0.001199995 * Engine Make^1*Engine3 Damage^1 + 0.000557682 * Engine Make^1*Engine4 Strike^1 + 0.000614401 * Engine Make^1*Engine4 Damage^1 + -0.000237973 * Engine Make^1*Engine Ingested^1 + -0.000364409 * Engine Make^1*Propeller Strike^1 + 0.003149487 * Engine Make^1*Propeller Damage^1 + 0.000177186 * Engine Make^1*Wing or Rotor Strike^1 + -0.000433092 * Engine Make^1*Wing or Rotor Damage^1 + 0.000138493 * Engine Make^1*Fuselage Strike^1 + 0.000145985 * Engine Make^1*Fuselage Damage^1 + 0.000140168 * Engine Make^1*Landing Gear Strike^1 + -0.003419867 * Engine Make^1*Landing Gear Damage^1 + 0.000200721 * Engine Make^1*Tail Strike^1 + -

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Engines^1*Injuries^1 + -0.000306599 * Engines^1*Radome Strike^1 + 0.011151728 * Engines^1*Radome Damage^1 + -0.001931870 * Engines^1*Windshield Strike^1 + -0.000668938 * Engines^1*Windshield Damage^1 + 0.004658985 * Engines^1*Nose Strike^1 + -0.074522902 * Engines^1*Nose Damage^1 + -0.004654912 * Engines^1*Engine1 Strike^1 + 0.010094525 * Engines^1*Engine1 Damage^1 + -0.015153121 * Engines^1*Engine2 Strike^1 + 0.031642728 * Engines^1*Engine2 Damage^1 + 0.017509360 * Engines^1*Engine3 Strike^1 + -0.061395627 * Engines^1*Engine3 Damage^1 + 0.285398894 * Engines^1*Engine4 Strike^1 + -0.302962879 * Engines^1*Engine4 Damage^1 + 0.019875615 * Engines^1*Engine Ingested^1 + 0.011180589 * Engines^1*Propeller Strike^1 + 0.062184867 * Engines^1*Propeller Damage^1 + -0.009422808 * Engines^1*Wing or Rotor Strike^1 + 0.018293851 * Engines^1*Wing or Rotor Damage^1 + -0.000112919 * Engines^1*Fuselage Strike^1 + -0.025032179 * Engines^1*Fuselage Damage^1 + -0.011091683 * Engines^1*Landing Gear Strike^1 + 0.051225392 * Engines^1*Landing Gear Damage^1 + -0.004651013 * Engines^1*Tail Strike^1 + 0.011515120 * Engines^1*Tail Damage^1 + 0.033317912 * Engines^1*Lights Strike^1 + -0.015808941 * Engines^1*Lights Damage^1 + -0.006217308 * Engines^1*Other Strike^1 + -0.024202415 * Engines^1*Other Damage^1 + 0.000437106 * Engine Type^2 + 0.000293588 * Engine Type^1*Engine1 Position^1 + 0.000124250 * Engine Type^1*Engine2 Position^1 + -0.007716922 * Engine Type^1*Engine3 Position^1 + 0.012386673 * Engine Type^1*Engine4 Position^1 + -0.000000391 * Engine Type^1*Airport ID^1 + 0.000000178 * Engine Type^1*Airport^1 + -0.000022134 * Engine Type^1*State^1 + 0.000099287 * Engine Type^1*FAA Region^1 + -0.000610449 * Engine Type^1*Warning Issued^1 + 0.000298115 * Engine Type^1*Flight Phase^1 + -0.000059293 * Engine Type^1*Visibility^1 + -0.000851127 * Engine Type^1*Precipitation^1 + -0.000001738 * Engine Type^1*Height^1 + -0.000000981 * Engine Type^1*Speed^1 + 0.000027838 * Engine Type^1*Distance^1 + 0.000011929 * Engine Type^1*Species ID^1 + -0.000002977 * Engine Type^1*Species Name^1 + -0.000372178 * Engine Type^1*Species Quantity^1 + -0.000149578 * Engine Type^1*Flight Impact^1 + -0.074469834 * Engine Type^1*Fatalities^1 + -0.002116295 * Engine Type^1*Injuries^1 + -0.003621468 * Engine Type^1*Radome Strike^1 + 0.013890362 * Engine Type^1*Radome Damage^1 + 0.000746594 * Engine Type^1*Windshield Strike^1 + 0.004119696 * Engine Type^1*Windshield Damage^1 + 0.001358002 * Engine Type^1*Nose Strike^1 + 0.013500772 * Engine Type^1*Nose Damage^1 + 0.000462228 * Engine Type^1*Engine1 Strike^1 + 0.002990671 * Engine Type^1*Engine1 Damage^1 + -0.004395695 * Engine Type^1*Engine2 Strike^1 + 0.004021711 * Engine Type^1*Engine2 Damage^1 + 0.008685371 * Engine Type^1*Engine3 Strike^1 + -0.000846970 * Engine Type^1*Engine3 Damage^1 + -0.053170462 * Engine Type^1*Engine4 Strike^1 + 0.050991143 * Engine Type^1*Engine4 Damage^1 + -0.005263899 * Engine Type^1*Engine Ingested^1 + 0.001855558 * Engine Type^1*Propeller Strike^1 + 0.016015829 * Engine Type^1*Propeller Damage^1 + -0.000650479 * Engine Type^1*Wing or Rotor Strike^1 + 0.002406815 * Engine Type^1*Wing or Rotor Damage^1 + 0.001217561 * Engine Type^1*Fuselage Strike^1 + -0.012890340 * Engine Type^1*Fuselage Damage^1 + 0.002059211 * Engine Type^1*Landing Gear Strike^1 + 0.014860549 * Engine Type^1*Landing Gear Damage^1 + -0.001758247 * Engine Type^1*Tail Strike^1 + 0.022617426 * Engine Type^1*Tail Damage^1 + 0.017258265 * Engine Type^1*Lights Strike^1 + -0.010807543 * Engine Type^1*Lights Damage^1 + 0.001564497 * Engine Type^1*Other Strike^1 + 0.006444427 * Engine Type^1*Other Damage^1 + -0.000010746 * Engine1 Position^2 + 0.000720539 * Engine1 Position^1*Engine2 Position^1 + -0.000077225 *

Engine1 Position^1*Engine3 Position^1 + -0.002573167 * Engine1 Position^1*Engine4 Position^1 + -0.000000314 * Engine1 Position^1*Airport ID^1 + 0.000000414 * Engine1 Position^1*Airport^1 + 0.000001279 * Engine1 Position^1*State^1 + 0.000181408 * Engine1 Position^1*FAA Region^1 + 0.000927419 * Engine1 Position^1*Warning Issued^1 + -0.000121082 * Engine1 Position^1*Flight Phase^1 + 0.000051543 * Engine1 Position^1*Visibility^1 + -0.000157248 * Engine1 Position^1*Precipitation^1 + -0.000001513 * Engine1 Position^1*Height^1 + -0.000011529 * Engine1 Position^1*Speed^1 + -0.000010724 * Engine1 Position^1*Distance^1 + -0.000003391 * Engine1 Position^1*Species ID^1 + 0.000002025 * Engine1 Position^1*Species Name^1 + 0.000679704 * Engine1 Position^1*Species Quantity^1 + -0.000777351 * Engine1 Position^1*Flight Impact^1 + -0.062429086 * Engine1 Position^1*Fatalities^1 + -0.002139418 * Engine1Position^1*Injuries^1 + -0.002051646 * Engine1 Position^1*Radome Strike^1 + -0.004130881 * Engine1 Position^1*Radome Damage^1 + -0.000299702 * Engine1 Position^1*Windshield Strike^1 + -0.005496318 * Engine1 Position^1*Windshield Damage^1 + -0.002472510 * Engine1 Position^1*Nose Strike^1 + 0.006816368 * Engine1 Position^1*Nose Damage^1 + -0.001454713 * Engine1 Position^1*Engine1 Strike^1 + 0.003517865 * Engine1 Position^1*Engine1 Damage^1 + -0.002158571 * Engine1 Position^1*Engine2 Strike^1 + 0.004111835 * Engine1 Position^1*Engine2 Damage^1 + -0.002095411 * Engine1 Position^1*Engine3 Strike^1 + 0.005407558 * Engine1 Position^1*Engine3 Damage^1 + 0.020297632 * Engine1 Position^1*Engine4 Strike^1 + -0.023274522 * Engine1 Position^1*Engine4 Damage^1 + -0.005418970 * Engine1 Position^1*Engine Ingested^1 + 0.000228191 * Engine1 Position^1*Propeller Strike^1 + -0.056879206 * Engine1 Position^1*Propeller Damage^1 + 0.001399393 * Engine1 Position^1*Wing or Rotor Strike^1 + 0.003247010 * Engine1 Position^1*Wing or Rotor Damage^1 + -0.000942768 * Engine1 Position^1*Fuselage Strike^1 + -0.004250749 * Engine1 Position^1*Fuselage Damage^1 + -0.001192780 * Engine1 Position^1*Landing Gear Strike^1 + -0.009945213 * Engine1 Position^1*Landing Gear Damage^1 + -0.011937062 * Engine1 Position^1*Tail Strike^1 + 0.013613461 * Engine1 Position^1*Tail Damage^1 + -0.033536344 * Engine1 Position^1*Lights Strike^1 + 0.026194265 * Engine1 Position^1*Lights Damage^1 + -0.000301841 * Engine1 Position^1*Other Strike^1 + 0.008820081 * Engine1 Position^1*Other Damage^1 + -0.001293029 * Engine2 Position^2 + 0.004811360 * Engine2 Position^1*Engine3 Position^1 + -0.014377213 * Engine2 Position^1*Engine4 Position^1 + -0.000000339 * Engine2 Position^1*Airport ID^1 + -0.000000379 * Engine2 Position^1*Airport^1 + 0.000005009 * Engine2 Position^1*State^1 + -0.000232740 * Engine2 Position^1*FAA Region^1 + -0.002152243 * Engine2 Position^1*Warning Issued^1 + 0.000192755 * Engine2 Position^1*Flight Phase^1 + -0.000134734 * Engine2 Position^1*Visibility^1 + 0.000418825 * Engine2 Position^1*Precipitation^1 + 0.000004717 * Engine2 Position^1*Height^1 + 0.000025856 * Engine2 Position^1*Speed^1 + 0.000009089 * Engine2 Position^1*Distance^1 + 0.000001074 * Engine2 Position^1*Species ID^1 + -0.000005081 * Engine2 Position^1*Species Name^1 + -0.000611380 * Engine2 Position^1*Species Quantity^1 + 0.001415907 * Engine2 Position^1*Flight Impact^1 + 0.144372521 * Engine2 Position^1*Fatalities^1 + 0.002118343 * Engine2 Position^1*Injuries^1 + 0.005480644 * Engine2 Position^1*Radome Strike^1 + 0.011280464 * Engine2 Position^1*Radome Damage^1 + 0.001365281 * Engine2 Position^1*Windshield Strike^1 + 0.004848756 * Engine2 Position^1*Windshield Damage^1 + 0.005418760 * Engine2 Position^1*Nose Strike^1 + -0.022195031 * Engine2 Position^1*Nose Damage^1 + -0.000705245 * Engine2 Position^1*Engine1 Strike^1 + -0.009992558 * Engine2

Position^1*Engine1 Damage^1 + 0.008410297 * Engine2 Position^1*Engine2 Strike^1 + -0.020116326 * Engine2 Position^1*Engine2 Damage^1 + 0.012790155 * Engine2 Position^1*Engine3 Strike^1 + -0.020635988 * Engine2 Position^1*Engine3 Damage^1 + 0.003987561 * Engine2 Position^1*Engine4 Strike^1 + -0.001466102 * Engine2 Position^1*Engine4 Damage^1 + 0.014868737 * Engine2 Position^1*Engine Ingested^1 + -0.002553392 * Engine2 Position^1*Propeller Strike^1 + 0.118290496 * Engine2 Position^1*Propeller Damage^1 + -0.002933459 * Engine2 Position^1*Wing or Rotor Strike^1 + -0.002033799 * Engine2 Position^1*Wing or Rotor Damage^1 + 0.002478892 * Engine2 Position^1*Fuselage Strike^1 + 0.017349279 * Engine2 Position^1*Fuselage Damage^1 + 0.002832260 * Engine2 Position^1*Landing Gear Strike^1 + 0.019622159 * Engine2 Position^1*Landing Gear Damage^1 + 0.016341389 * Engine2 Position^1*Tail Strike^1 + -0.011991735 * Engine2 Position^1*Tail Damage^1 + 0.073350273 * Engine2 Position^1*Lights Strike^1 + -0.058162492 * Engine2 Position^1*Lights Damage^1 + 0.000909937 * Engine2 Position^1*Other Strike^1 + -0.014551703 * Engine2 Position^1*Other Damage^1 + 0.000089381 * Engine3 Position^2 + -0.004452315 * Engine3 Position^1*Engine4 Position^1 + 0.000000357 * Engine3 Position^1*Airport ID^1 + 0.000000143 * Engine3 Position^1*Airport^1 + 0.000009908 * Engine3 Position^1*State^1 + -0.000149533 * Engine3 Position^1*FAA Region^1 + -0.001342564 * Engine3 Position^1*Warning Issued^1 + 0.000150612 * Engine3 Position^1*Flight Phase^1 + -0.000005894 * Engine3 Position^1*Visibility^1 + 0.000048453 * Engine3 Position^1*Precipitation^1 + 0.000002854 * Engine3 Position^1*Height^1 + 0.000017219 * Engine3 Position^1*Speed^1 + 0.000013909 * Engine3 Position^1*Distance^1 + -0.000002345 * Engine3 Position^1*Species ID^1 + -0.000004103 * Engine3 Position^1*Species Name^1 + -0.000584811 * Engine3 Position^1*Species Quantity^1 + 0.000862540 * Engine3 Position^1*Flight Impact^1 + 0.078918024 * Engine3 Position^1*Fatalities^1 + 0.003592421 * Engine3 Position^1*Injuries^1 + 0.002012571 * Engine3 Position^1*Radome Strike^1 + 0.011551959 * Engine3 Position^1*Radome Damage^1 + -0.000667614 * Engine3 Position^1*Windshield Strike^1 + 0.011071543 * Engine3 Position^1*Windshield Damage^1 + 0.003172571 * Engine3 Position^1*Nose Strike^1 + -0.029993617 * Engine3 Position^1*Nose Damage^1 + -0.000530376 * Engine3 Position^1*Engine1 Strike^1 + -0.001874497 * Engine3 Position^1*Engine1 Damage^1 + -0.003426687 * Engine3 Position^1*Engine2 Strike^1 + -0.001890331 * Engine3 Position^1*Engine2 Damage^1 + -0.002238517 * Engine3 Position^1*Engine3 Strike^1 + -0.005069208 * Engine3 Position^1*Engine3 Damage^1 + -0.056791235 * Engine3 Position^1*Engine4 Strike^1 + 0.055738753 * Engine3 Position^1*Engine4 Damage^1 + 0.008552852 * Engine3 Position^1*Engine Ingested^1 + -0.012531934 * Engine3 Position^1*Propeller Strike^1 + 0.063456377 * Engine3 Position^1*Propeller Damage^1 + -0.004004021 * Engine3 Position^1*Wing or Rotor Strike^1 + -0.005536551 * Engine3 Position^1*Wing or Rotor Damage^1 + 0.000785089 * Engine3 Position^1*Fuselage Strike^1 + -0.004865404 * Engine3 Position^1*Fuselage Damage^1 + -0.001481521 * Engine3 Position^1*Landing Gear Strike^1 + 0.011675961 * Engine3 Position^1*Landing Gear Damage^1 + 0.011400675 * Engine3 Position^1*Tail Strike^1 + -0.021950341 * Engine3 Position^1*Tail Damage^1 + 0.033251254 * Engine3 Position^1*Lights Strike^1 + -0.020240797 * Engine3 Position^1*Lights Damage^1 + -0.001914442 * Engine3 Position^1*Other Strike^1 + -0.016846933 * Engine3 Position^1*Other Damage^1 + 0.021756449 * Engine4 Position^2 + -0.000001131 * Engine4 Position^1*Airport ID^1 + 0.000001211 * Engine4 Position^1*Airport^1 + 0.000030124 * Engine4 Position^1*State^1 +

0.000305719 * Engine4 Position^1*FAA Region^1 + 0.001873755 * Engine4 Position^1*Warning Issued^1 + -0.000173548 * Engine4 Position^1*Flight Phase^1 + 0.000591983 * Engine4 Position^1*Visibility^1 + -0.000602088 * Engine4 Position^1*Precipitation^1 + -0.000013395 * Engine4 Position^1*Height^1 + -0.000011992 * Engine4 Position^1*Speed^1 + 0.000003576 * Engine4 Position^1*Distance^1 + -0.000003901 * Engine4 Position^1*Species ID^1 + 0.000006392 * Engine4 Position^1*Species Name^1 + 0.000416907 * Engine4 Position^1*Species Quantity^1 + -0.001571206 * Engine4 Position^1*Flight Impact^1 + 0.003049246 * Engine4 Position^1*Fatalities^1 + 0.106632897 * Engine4 Position^1*Injuries^1 + -0.002020761 * Engine4 Position^1*Radome Strike^1 + -0.005978486 * Engine4 Position^1*Radome Damage^1 + 0.002722509 * Engine4 Position^1*Windshield Strike^1 + 0.031314792 * Engine4 Position^1*Windshield Damage^1 +- 0.001072529 * Engine4 Position^1*Nose Strike^1 + 0.019578883 * Engine4 Position^1*Nose Damage^1 + 0.001563735 * Engine4 Position^1*Engine1 Strike^1 + 0.012784293 * Engine4 Position^1*Engine1 Damage^1 + 0.000091578 * Engine4 Position^1*Engine2 Strike^1 + 0.020687082 * Engine4 Position^1*Engine2 Damage^1 + -0.010027494 * Engine4 Position^1*Engine3 Strike^1 + 0.010751361 * Engine4 Position^1*Engine3 Damage^1 + -0.010930534 * Engine4 Position^1*Engine4 Strike^1 + 0.014467623 * Engine4 Position^1*Engine4 Damage^1 + -0.006985096 * Engine4 Position^1*Engine Ingested^1 + 0.041322364 * Engine4 Position^1*Propeller Strike^1 + -0.135126049 * Engine4 Position^1*Propeller Damage^1 + 0.003700500 * Engine4 Position^1*Wing or Rotor Strike^1 + 0.022139463 * Engine4 Position^1*Wing or Rotor Damage^1 + 0.000323451 * Engine4 Position^1*Fuselage Strike^1 + 0.047044837 * Engine4 Position^1*Fuselage Damage^1 + - 0.001503729 * Engine4 Position^1*Landing Gear Strike^1 + -0.028911773 * Engine4 Position^1*Landing Gear Damage^1 + -0.020215965 * Engine4 Position^1*Tail Strike^1 + 0.045196714 * Engine4 Position^1*Tail Damage^1 + -0.092447575 * Engine4 Position^1*Lights Strike^1 + 0.080783218 * Engine4 Position^1*Lights Damage^1 + 0.004228782 * Engine4 Position^1*Other Strike^1 + 0.019223749 * Engine4 Position^1*Other Damage^1 + 0.000000001 * Airport ID^2 + 0.000000000 * Airport ID^1*Airport^1 + - 0.000000027 * Airport ID^1*State^1 + -0.000000583 * Airport ID^1*FAA Region^1 + 0.000000075 * Airport ID^1*Warning Issued^1 + 0.000000071 * Airport ID^1*Flight Phase^1 + 0.000000123 * Airport ID^1*Visibility^1 + 0.000000613 * Airport ID^1*Precipitation^1 + 0.000000002 * Airport ID^1*Height^1 + -0.000000013 * Airport ID^1*Speed^1 + - 0.000000006 * Airport ID^1*Distance^1 + -0.000000007 * Airport ID^1*Species ID^1 + 0.000000000 * Airport ID^1*Species Name^1 + 0.000002107 * Airport ID^1*Species Quantity^1 + -0.000000166 * Airport ID^1*Flight Impact^1 + -0.000000724 * Airport ID^1*Fatalities^1 + 0.000013558 * Airport ID^1*Injuries^1 + -0.000004255 * Airport ID^1*Radome Strike^1 + -0.000027366 * Airport ID^1*Radome Damage^1 + -0.000005833 * Airport ID^1*Windshield Strike^1 + -0.000030804 * Airport ID^1*Windshield Damage^1 + - 0.000006139 * Airport ID^1*Nose Strike^1 + 0.000013706 * Airport ID^1*Nose Damage^1 + - 0.000009225 * Airport ID^1*Engine1 Strike^1 + -0.000015934 * Airport ID^1*Engine1 Damage^1 + -0.000017988 * Airport ID^1*Engine2 Strike^1 + -0.000019625 * Airport ID^1*Engine2 Damage^1 + -0.000020397 * Airport ID^1*Engine3 Strike^1 + 0.000001159 * Airport ID^1*Engine3 Damage^1 + -0.000050682 * Airport ID^1*Engine4 Strike^1 + 0.000042788 * Airport ID^1*Engine4 Damage^1 + 0.000011911 * Airport ID^1*Engine Ingested^1 + 0.000004851 * Airport ID^1*Propeller Strike^1 + 0.000023748 * Airport ID^1*Propeller Damage^1 + -0.000003852 * Airport ID^1*Wing or Rotor Strike^1 + -

0.000014223 * Airport ID^1*Wing or Rotor Damage^1 + -0.000007150 * Airport ID^1*Fuselage Strike^1 + -0.000036814 * Airport ID^1*Fuselage Damage^1 + -0.000007634 * Airport ID^1*Landing Gear Strike^1 + -0.000015105 * Airport ID^1*Landing Gear Damage^1 + 0.000000008 * Airport ID^1*Tail Strike^1 + -0.000036194 * Airport ID^1*Tail Damage^1 + 0.000017942 * Airport ID^1*Lights Strike^1 + -0.000055377 * Airport ID^1*Lights Damage^1 + -0.000007185 * Airport ID^1*Other Strike^1 + -0.000012804 * Airport ID^1*Other Damage^1 + -0.000000000 * Airport^2 + 0.000000003 * Airport^1*State^1 + 0.000000381 * Airport^1*FAA Region^1 + -0.000000424 * Airport^1*Warning Issued^1 + -0.000000214 * Airport^1*Flight Phase^1 + -0.000000088 * Airport^1*Visibility^1 + -0.000000052 * Airport^1*Precipitation^1 + -0.000000002 * Airport^1*Height^1 + 0.000000002 * Airport^1*Speed^1 + -0.000000008 * Airport^1*Distance^1 + 0.000000000 *Airport^1*Species ID^1 + -0.000000000 * Airport^1*Species Name^1 + -0.000002339 * Airport^1*Species Quantity^1 + 0.000000355 * Airport^1*Flight Impact^1 + 0.000000085 * Airport^1*Fatalities^1 + 0.000007154 * Airport^1*Injuries^1 + 0.000000683 * Airport^1*Radome Strike^1 + 0.000012777 * Airport^1*Radome Damage^1 + 0.000000547 * Airport^1*Windshield Strike^1 + -0.000008293 * Airport^1*Windshield Damage^1 + 0.000000392 * Airport^1*Nose Strike^1 + -0.000028187 * Airport^1*Nose Damage^1 + 0.000001872 * Airport^1*Engine1 Strike^1 + 0.000003125 * Airport^1*Engine1 Damage^1 + 0.000005761 * Airport^1*Engine2 Strike^1 + 0.000015999 * Airport^1*Engine2 Damage^1 + -0.000037986 * Airport^1*Engine3 Strike^1 + 0.000042344 * Airport^1*Engine3 Damage^1 + 0.000009491 * Airport^1*Engine4 Strike^1 + -0.000010139 * Airport^1*Engine4 Damage^1 + -0.000003570 * Airport^1*Engine Ingested^1 + 0.000000755 * Airport^1*Propeller Strike^1 + -0.000036326 * Airport^1*Propeller Damage^1 + -0.000000894 * Airport^1*Wing or Rotor Strike^1 + 0.000001679 * Airport^1*Wing or Rotor Damage^1 + 0.000000790 * Airport^1*Fuselage Strike^1 + -0.000001531 * Airport^1*Fuselage Damage^1 + 0.000001914 * Airport^1*Landing Gear Strike^1 + -0.000021710 * Airport^1*Landing Gear Damage^1 + 0.000014758 * Airport^1*Tail Strike^1 + 0.000009855 * Airport^1*Tail Damage^1 + 0.000023182 * Airport^1*Lights Strike^1 + 0.000017413 * Airport^1*Lights Damage^1 + 0.000000711 * Airport^1*Other Strike^1 + -0.000009115 * Airport^1*Other Damage^1 + 0.000000959 * State^2 + 0.000014601 * State^1*FAA Region^1 + 0.000017626 * State^1*Warning Issued^1 + 0.000002293 * State^1*Flight Phase^1 + -0.000010415 * State^1*Visibility^1 + -0.000011538 * State^1*Precipitation^1 + 0.000000038 * State^1*Height^1 + -0.000000168 * State^1*Speed^1 + -0.000000027 * State^1*Distance^1 + -0.000000035 * State^1*Species ID^1 + 0.000000006 * State^1*Species Name^1 + 0.000052847 * State^1*Species Quantity^1 + -0.000021283 * State^1*Flight Impact^1 + 0.000078894 * State^1*Fatalities^1 + 0.000005902 * State^1*Injuries^1 + -0.000009562 * State^1*Radome Strike^1 + 0.000181262 * State^1*Radome Damage^1 + -0.000004459 * State^1*Windshield Strike^1 + 0.000335344 * State^1*Windshield Damage^1 + -0.000023569 * State^1*Nose Strike^1 + -0.000346663 * State^1*Nose Damage^1 + 0.000005823 * State^1*Engine1 Strike^1 + -0.000121832 * State^1*Engine1 Damage^1 + 0.000042070 * State^1*Engine2 Strike^1 + -0.000136309 * State^1*Engine2 Damage^1 + 0.000939184 * State^1*Engine3 Strike^1 + -0.000754701 * State^1*Engine3 Damage^1 + -0.000092863 * State^1*Engine4 Strike^1 + 0.000251547 * State^1*Engine4 Damage^1 + 0.000092873 * State^1*Engine Ingested^1 + -0.000098998 * State^1*Propeller Strike^1 + 0.000786087 * State^1*Propeller Damage^1 + -0.000062204 * State^1*Wing or Rotor Strike^1 + 0.000218872 * State^1*Wing or Rotor Damage^1 + -0.000036687 * State^1*Fuselage Strike^1 + 0.000482964 * State^1*Fuselage

Damage^1 + -0.000023786 * State^1*Landing Gear Strike^1 + -0.000075573 * State^1*Landing Gear Damage^1 + 0.000603948 * State^1*Tail Strike^1 + -0.000774996 * State^1*Tail Damage^1 + -0.000716261 * State^1*Lights Strike^1 + 0.001213144 * State^1*Lights Damage^1 + 0.000018267 * State^1*Other Strike^1 + 0.000552477 * State^1*Other Damage^1 + 0.000013265 * FAA Region^2 + 0.000043296 * FAA Region^1*Warning Issued^1 + 0.000002519 * FAA Region^1*Flight Phase^1 + -0.000007200 * FAA Region^1*Visibility^1 + -0.000064356 * FAA Region^1*Precipitation^1 + 0.000000889 * FAA Region^1*Height^1 + -0.000001779 * FAA Region^1*Speed^1 + -0.000001819 * FAA Region^1*Distance^1 + 0.000000050 * FAA Region^1*Species ID^1 + -0.000000093 * FAA Region^1*Species Name^1 + 0.000467394 * FAA Region^1*Species Quantity^1 + 0.000005262 * FAA Region^1*Flight Impact^1 + 0.000940393 * FAA Region^1*Fatalities^1 + -0.001509146 * FAARegion^1*Injuries^1 + -0.000032359 * FAA Region^1*Radome Strike^1 + -0.000616670 * FAA Region^1*Radome Damage^1 + 0.000142856 * FAA Region^1*Windshield Strike^1 + 0.003591887 * FAA Region^1*Windshield Damage^1 + 0.000165397 * FAA Region^1*Nose Strike^1 + 0.007257571 * FAA Region^1*Nose Damage^1 + 0.001003157 * FAA Region^1*Engine1 Strike^1 + 0.002660000 * FAA Region^1*Engine1 Damage^1 + 0.001600797 * FAA Region^1*Engine2 Strike^1 + -0.000149061 * FAA Region^1*Engine2 Damage^1 + 0.001013040 * FAA Region^1*Engine3 Strike^1 + 0.000938879 * FAA Region^1*Engine3 Damage^1 + 0.001556413 * FAA Region^1*Engine4 Strike^1 + 0.000660006 * FAA Region^1*Engine4 Damage^1 + -0.002244869 * FAA Region^1*Engine Ingested^1 + 0.000151646 * FAA Region^1*Propeller Strike^1 + 0.009950421 * FAA Region^1*Propeller Damage^1 + -0.000386644 * FAA Region^1*Wing or Rotor Strike^1 + 0.002172456 * FAA Region^1*Wing or Rotor Damage^1 + 0.000266485 * FAA Region^1*Fuselage Strike^1 + 0.003572845 * FAA Region^1*Fuselage Damage^1 + 0.000679440 * FAA Region^1*Landing Gear Strike^1 + 0.001737615 * FAA Region^1*Landing Gear Damage^1 + -0.000029129 * FAA Region^1*Tail Strike^1 + -0.000456074 * FAA Region^1*Tail Damage^1 + 0.001932563 * FAA Region^1*Lights Strike^1 + -0.005852271 * FAA Region^1*Lights Damage^1 + 0.000392739 * FAA Region^1*Other Strike^1 + 0.002995562 * FAA Region^1*Other Damage^1 + -0.000183244 * Warning Issued^2 + -0.000013167 * Warning Issued^1*Flight Phase^1 + 0.000252888 * Warning Issued^1*Visibility^1 + -0.000342535 * Warning Issued^1*Precipitation^1 + -0.000003757 * Warning Issued^1*Height^1 + 0.000006365 * Warning Issued^1*Speed^1 + 0.000010437 * Warning Issued^1*Distance^1 + -0.000004422 * Warning Issued^1*Species ID^1 + 0.000002013 * Warning Issued^1*Species Name^1 + 0.000133164 * Warning Issued^1*Species Quantity^1 + 0.000147860 * Warning Issued^1*Flight Impact^1 + -0.031829581 * Warning Issued^1*Fatalities^1 + 0.000560716 * Warning Issued^1*Injuries^1 + -0.000474469 * Warning Issued^1*Radome Strike^1 + -0.002303520 * Warning Issued^1*Radome Damage^1 + -0.000328522 * Warning Issued^1*Windshield Strike^1 + 0.003857661 * Warning Issued^1*Windshield Damage^1 + -0.000506787 * Warning Issued^1*Nose Strike^1 + -0.007583461 * Warning Issued^1*Nose Damage^1 + -0.001579032 * Warning Issued^1*Engine1 Strike^1 + -0.002788510 * Warning Issued^1*Engine1 Damage^1 + -0.002264852 * Warning Issued^1*Engine2 Strike^1 + -0.001932454 * Warning Issued^1*Engine2 Damage^1 + 0.006944404 * Warning Issued^1*Engine3 Strike^1 + -0.011088468 * Warning Issued^1*Engine3 Damage^1 + -0.009082303 * Warning Issued^1*Engine4 Strike^1 + 0.011521188 * Warning Issued^1*Engine4 Damage^1 + 0.000825737 * Warning Issued^1*Engine Ingested^1 + -0.000510226 * Warning

Issued^1*Propeller Strike^1 + -0.008227994 * Warning Issued^1*Propeller Damage^1 + -0.000690602 * Warning Issued^1*Wing or Rotor Strike^1 + -0.004443153 * Warning Issued^1*Wing or Rotor Damage^1 + 0.000464456 * Warning Issued^1*Fuselage Strike^1 + 0.000907620 * Warning Issued^1*Fuselage Damage^1 + -0.001780663 * Warning Issued^1*Landing Gear Strike^1 + 0.003735384 * Warning Issued^1*Landing Gear Damage^1 + 0.000825111 * Warning Issued^1*Tail Strike^1 + -0.022587237 * Warning Issued^1*Tail Damage^1 + -0.001142551 * Warning Issued^1*Lights Strike^1 + 0.004500177 * Warning Issued^1*Lights Damage^1 + -0.000459525 * Warning Issued^1*Other Strike^1 + 0.002869432 * Warning Issued^1*Other Damage^1 + -0.000040621 * Flight Phase^2 + 0.000067989 * Flight Phase^1*Visibility^1 + 0.000017587 * Flight Phase^1*Precipitation^1 + -0.000000027 * Flight Phase^1*Height^1 + -0.000000801 * Flight Phase^1*Speed^1 + -0.000001298 * FlightPhase^1*Distance^1 + 0.000003603 * Flight Phase^1*Species ID^1 + 0.000000003 * Flight Phase^1*Species Name^1 + 0.000059498 * Flight Phase^1*Species Quantity^1 + 0.000017581 * Flight Phase^1*Flight Impact^1 + 0.000054942 * Flight Phase^1*Fatalities^1 + -0.000016664 * Flight Phase^1*Injuries^1 + -0.000044627 * Flight Phase^1*Radome Strike^1 + 0.001623536 * Flight Phase^1*Radome Damage^1 + 0.000202950 * Flight Phase^1*Windshield Strike^1 + 0.002110999 * Flight Phase^1*Windshield Damage^1 + 0.000141578 * Flight Phase^1*Nose Strike^1 + -0.000919615 * Flight Phase^1*Nose Damage^1 + -0.000430433 * Flight Phase^1*Engine1 Strike^1 + 0.000932533 * Flight Phase^1*Engine1 Damage^1 + -0.000732349 * Flight Phase^1*Engine2 Strike^1 + 0.001218844 * Flight Phase^1*Engine2 Damage^1 + 0.001736502 * Flight Phase^1*Engine3 Strike^1 + -0.002314763 * Flight Phase^1*Engine3 Damage^1 + 0.006578472 * Flight Phase^1*Engine4 Strike^1 + -0.007698807 * Flight Phase^1*Engine4 Damage^1 + 0.000784583 * Flight Phase^1*Engine Ingested^1 + 0.000990575 * Flight Phase^1*Propeller Strike^1 + 0.002723532 * Flight Phase^1*Propeller Damage^1 + 0.000314199 * Flight Phase^1*Wing or Rotor Strike^1 + -0.000058288 * Flight Phase^1*Wing or Rotor Damage^1 + 0.000289164 * Flight Phase^1*Fuselage Strike^1 + -0.006905662 * Flight Phase^1*Fuselage Damage^1 + -0.000254366 * Flight Phase^1*Landing Gear Strike^1 + 0.006040922 * Flight Phase^1*Landing Gear Damage^1 + -0.003286639 * Flight Phase^1*Tail Strike^1 + 0.016701704 * Flight Phase^1*Tail Damage^1 + -0.006339877 * Flight Phase^1*Lights Strike^1 + 0.009301022 * Flight Phase^1*Lights Damage^1 + 0.000157113 * Flight Phase^1*Other Strike^1 + -0.000372571 * Flight Phase^1*Other Damage^1 + 0.000164635 * Visibility^2 + 0.000152608 * Visibility^1*Precipitation^1 + 0.000001270 * Visibility^1*Height^1 + -0.000002156 * Visibility^1*Speed^1 + 0.000003702 * Visibility^1*Distance^1 + -0.000003615 * Visibility^1*Species ID^1 + 0.000000903 * Visibility^1*Species Name^1 + 0.001078219 * Visibility^1*Species Quantity^1 + -0.000102562 * Visibility^1*Flight Impact^1 + 0.001243268 * Visibility^1*Fatalities^1 + 0.005456730 * Visibility^1*Injuries^1 + 0.000963104 * Visibility^1*Radome Strike^1 + 0.002702491 * Visibility^1*Radome Damage^1 + 0.000130828 * Visibility^1*Windshield Strike^1 + 0.005423248 * Visibility^1*Windshield Damage^1 + 0.000295942 * Visibility^1*Nose Strike^1 + -0.006339006 * Visibility^1*Nose Damage^1 + 0.000244541 * Visibility^1*Engine1 Strike^1 + 0.001143589 * Visibility^1*Engine1 Damage^1 + 0.002240091 * Visibility^1*Engine2 Strike^1 + 0.003394012 * Visibility^1*Engine2 Damage^1 + 0.008205848 * Visibility^1*Engine3 Strike^1 + -0.009228345 * Visibility^1*Engine3 Damage^1 + 0.000213587 * Visibility^1*Engine4 Strike^1 + 0.003484901 * Visibility^1*Engine4 Damage^1 + -0.001669813 * Visibility^1*Engine Ingested^1 +

0.000736030 * Visibility^1*Propeller Strike^1 + -0.030582255 * Visibility^1*Propeller Damage^1 + 0.000272303 * Visibility^1*Wing or Rotor Strike^1 + -0.003623972 * Visibility^1*Wing or Rotor Damage^1 + 0.000690678 * Visibility^1*Fuselage Strike^1 + 0.000764361 * Visibility^1*Fuselage Damage^1 + -0.000522023 * Visibility^1*Landing Gear Strike^1 + -0.000547048 * Visibility^1*Landing Gear Damage^1 + -0.000483672 * Visibility^1*Tail Strike^1 + -0.013931626 * Visibility^1*Tail Damage^1 + 0.002845194 * Visibility^1*Lights Strike^1 + 0.013202401 * Visibility^1*Lights Damage^1 + 0.000273860 * Visibility^1*Other Strike^1 + 0.000807608 * Visibility^1*Other Damage^1 + 0.000015530 * Precipitation^2 + -0.000001149 * Precipitation^1*Height^1 + 0.000004499 * Precipitation^1*Speed^1 + -0.000000919 * Precipitation^1*Distance^1 + -0.000002162 * Precipitation^1*Species ID^1 + 0.000000537 * Precipitation^1*Species Name^1 + -0.000306011 * Precipitation^1*Species Quantity^1 + -0.000000858 * Precipitation^1*FlightImpact^1 + 0.093638690 * Precipitation^1*Fatalities^1 + 0.003037623 * Precipitation^1*Injuries^1 + -0.000195222 * Precipitation^1*Radome Strike^1 + 0.004968714 * Precipitation^1*Radome Damage^1 + -0.000736672 * Precipitation^1*Windshield Strike^1 + 0.004845268 * Precipitation^1*Windshield Damage^1 + -0.000349858 * Precipitation^1*Nose Strike^1 + -0.002437412 * Precipitation^1*Nose Damage^1 + -0.001112288 * Precipitation^1*Engine1 Strike^1 + 0.000297023 * Precipitation^1*Engine1 Damage^1 + -0.001527229 * Precipitation^1*Engine2 Strike^1 + -0.000042809 * Precipitation^1*Engine2 Damage^1 + -0.005601519 * Precipitation^1*Engine3 Strike^1 + 0.005865408 * Precipitation^1*Engine3 Damage^1 + 0.002654200 * Precipitation^1*Engine4 Strike^1 + -0.007686654 * Precipitation^1*Engine4 Damage^1 + 0.002811943 * Precipitation^1*Engine Ingested^1 + -0.002793358 * Precipitation^1*Propeller Strike^1 + -0.001094140 * Precipitation^1*Propeller Damage^1 + 0.000100778 * Precipitation^1*Wing or Rotor Strike^1 + -0.000882753 * Precipitation^1*Wing or Rotor Damage^1 + -0.000329000 * Precipitation^1*Fuselage Strike^1 + -0.005777046 * Precipitation^1*Fuselage Damage^1 + -0.000207378 * Precipitation^1*Landing Gear Strike^1 + -0.004916171 * Precipitation^1*Landing Gear Damage^1 + -0.002973547 * Precipitation^1*Tail Strike^1 + 0.015403421 * Precipitation^1*Tail Damage^1 + 0.004540931 * Precipitation^1*Lights Strike^1 + -0.000475431 * Precipitation^1*Lights Damage^1 + -0.000497303 * Precipitation^1*Other Strike^1 + 0.004369591 * Precipitation^1*Other Damage^1 + -0.000000064 * Height^2 + 0.000000093 * Height^1*Speed^1 + 0.000000140 * Height^1*Distance^1 + 0.000000021 * Height^1*Species ID^1 + -0.000000020 * Height^1*Species Name^1 + -0.000005716 * Height^1*Species Quantity^1 + 0.000004120 * Height^1*Flight Impact^1 + -0.000002456 * Height^1*Fatalities^1 + -0.000008321 * Height^1*Injuries^1 + -0.000010110 * Height^1*Radome Strike^1 + -0.000096615 * Height^1*Radome Damage^1 + -0.000010884 * Height^1*Windshield Strike^1 + -0.000073525 * Height^1*Windshield Damage^1 + -0.000007159 * Height^1*Nose Strike^1 + -0.000002527 * Height^1*Nose Damage^1 + 0.000021522 * Height^1*Engine1 Strike^1 + 0.000025640 * Height^1*Engine1 Damage^1 + -0.000002007 * Height^1*Engine2 Strike^1 + 0.000050845 * Height^1*Engine2 Damage^1 + 0.000123876 * Height^1*Engine3 Strike^1 + -0.000080054 * Height^1*Engine3 Damage^1 + -0.000015745 * Height^1*Engine4 Strike^1 + 0.000013240 * Height^1*Engine4 Damage^1 + -0.000051238 * Height^1*Engine Ingested^1 + -0.000008679 * Height^1*Propeller Strike^1 + -0.000114418 * Height^1*Propeller Damage^1 + -0.000001471 * Height^1*Wing or Rotor Strike^1 + 0.000000362 * Height^1*Wing or Rotor Damage^1 + -0.000001930 * Height^1*Fuselage Strike^1 + 0.000197626 * Height^1*Fuselage Damage^1 +

0.000000629 * Height^1*Landing Gear Strike^1 + -0.000041927 * Height^1*Landing Gear Damage^1 + 0.000022145 * Height^1*Tail Strike^1 + -0.000206965 * Height^1*Tail Damage^1 + 0.000054238 * Height^1*Lights Strike^1 + -0.000116213 * Height^1*Lights Damage^1 + -0.000008943 * Height^1*Other Strike^1 + -0.000012229 * Height^1*Other Damage^1 + -0.000000202 * Speed^2 + -0.000000282 * Speed^1*Distance^1 + -0.000000023 * Speed^1*Species ID^1 + 0.000000036 * Speed^1*Species Name^1 + -0.000007077 * Speed^1*Species Quantity^1 + -0.000001013 * Speed^1*Flight Impact^1 + -0.003686626 * Speed^1*Fatalities^1 + -0.000099476 * Speed^1*Injuries^1 + 0.000022283 * Speed^1*Radome Strike^1 + 0.000155499 * Speed^1*Radome Damage^1 + 0.000020083 * Speed^1*Windshield Strike^1 + -0.000061702 * Speed^1*Windshield Damage^1 + 0.000010776 * Speed^1*Nose Strike^1 + 0.000285549 * Speed^1*Nose Damage^1 + -0.000009008 * Speed^1*Engine1 Strike^1 + -0.000088219 * Speed^1*Engine1 Damage^1 + 0.000015006 * Speed^1*Engine2Strike^1 + -0.000144901 * Speed^1*Engine2 Damage^1 + -0.000033665 * Speed^1*Engine3 Strike^1 + 0.000060802 * Speed^1*Engine3 Damage^1 + -0.000067578 * Speed^1*Engine4 Strike^1 + 0.000038508 * Speed^1*Engine4 Damage^1 + 0.000050166 * Speed^1*Engine Ingested^1 + -0.000040378 * Speed^1*Propeller Strike^1 + 0.000025461 * Speed^1*Propeller Damage^1 + 0.000008911 * Speed^1*Wing or Rotor Strike^1 + -0.000028001 * Speed^1*Wing or Rotor Damage^1 + 0.000002524 * Speed^1*Fuselage Strike^1 + -0.000185365 * Speed^1*Fuselage Damage^1 + 0.000006169 * Speed^1*Landing Gear Strike^1 + 0.000210546 * Speed^1*Landing Gear Damage^1 + -0.000035508 * Speed^1*Tail Strike^1 + -0.000163749 * Speed^1*Tail Damage^1 + -0.000442928 * Speed^1*Lights Strike^1 + 0.000514939 * Speed^1*Lights Damage^1 + 0.000020588 * Speed^1*Other Strike^1 + 0.000119802 * Speed^1*Other Damage^1 + 0.000000007 * Distance^2 + -0.000000049 * Distance^1*Species ID^1 + -0.000000063 * Distance^1*Species Name^1 + -0.000007406 * Distance^1*Species Quantity^1 + -0.000013489 * Distance^1*Flight Impact^1 + 0.000015465 * Distance^1*Fatalities^1 + 0.000107777 * Distance^1*Injuries^1 + -0.000015379 * Distance^1*Radome Strike^1 + 0.000228584 * Distance^1*Radome Damage^1 + -0.000008567 * Distance^1*Windshield Strike^1 + -0.000128982 * Distance^1*Windshield Damage^1 + -0.000015490 * Distance^1*Nose Strike^1 + 0.000197773 * Distance^1*Nose Damage^1 + -0.000111014 * Distance^1*Engine1 Strike^1 + -0.000087127 * Distance^1*Engine1 Damage^1 + -0.000079376 * Distance^1*Engine2 Strike^1 + -0.000122111 * Distance^1*Engine2 Damage^1 + -0.000302077 * Distance^1*Engine3 Strike^1 + 0.000070161 * Distance^1*Engine3 Damage^1 + 0.000296163 * Distance^1*Engine4 Strike^1 + -0.000622380 * Distance^1*Engine4 Damage^1 + 0.000217868 * Distance^1*Engine Ingested^1 + 0.000128033 * Distance^1*Propeller Strike^1 + -0.001365897 * Distance^1*Propeller Damage^1 + -0.000009841 * Distance^1*Wing or Rotor Strike^1 + 0.000067357 * Distance^1*Wing or Rotor Damage^1 + -0.000022064 * Distance^1*Fuselage Strike^1 + -0.000279234 * Distance^1*Fuselage Damage^1 + -0.000045489 * Distance^1*Landing Gear Strike^1 + 0.000526332 * Distance^1*Landing Gear Damage^1 + -0.000179464 * Distance^1*Tail Strike^1 + 0.001423328 * Distance^1*Tail Damage^1 + -0.000171406 * Distance^1*Lights Strike^1 + 0.000331014 * Distance^1*Lights Damage^1 + -0.000010886 * Distance^1*Other Strike^1 + -0.000420650 * Distance^1*Other Damage^1 + 0.000000029 * Species ID^2 + -0.000000008 * Species ID^1*Species Name^1 + -0.000017050 * Species ID^1*Species Quantity^1 + -0.000005239 * Species ID^1*Flight Impact^1 + -0.000047545 * Species ID^1*Fatalities^1 + -0.000005609 * Species ID^1*Injuries^1 + 0.000021848 * Species

ID^1*Radome Strike^1 + 0.000162182 * Species ID^1*Radome Damage^1 + 0.000042573 * Species ID^1*Windshield Strike^1 + -0.000021012 * Species ID^1*Windshield Damage^1 + 0.000022012 * Species ID^1*Nose Strike^1 + 0.000276742 * Species ID^1*Nose Damage^1 + -0.000017812 * Species ID^1*Engine1 Strike^1 + 0.000192215 * Species ID^1*Engine1 Damage^1 + 0.000029885 * Species ID^1*Engine2 Strike^1 + 0.000111627 * Species ID^1*Engine2 Damage^1 + -0.000173639 * Species ID^1*Engine3 Strike^1 + 0.000250052 * Species ID^1*Engine3 Damage^1 + 0.000014136 * Species ID^1*Engine4 Strike^1 + 0.000138649 * Species ID^1*Engine4 Damage^1 + -0.000031329 * Species ID^1*Engine Ingested^1 + 0.000033911 * Species ID^1*Propeller Strike^1 + 0.000267012 * Species ID^1*Propeller Damage^1 + 0.000028247 * Species ID^1*Wing or Rotor Strike^1 + 0.000164154 * Species ID^1*Wing or Rotor Damage^1 + 0.000034165 * Species ID^1*Fuselage Strike^1 + 0.000267663 * Species ID^1*Fuselage Damage^1 + 0.000052303 * Species ID^1*Landing Gear Strike^1 + 0.000177352 * Species ID^1*Landing Gear Damage^1 +0.000022457 * Species ID^1*Tail Strike^1 + 0.000291166 * Species ID^1*Tail Damage^1 + -0.000031233 * Species ID^1*Lights Strike^1 + 0.000303904 * Species ID^1*Lights Damage^1 + 0.000043897 * Species ID^1*Other Strike^1 + 0.000154168 * Species ID^1*Other Damage^1 + -0.000000001 * Species Name^2 + 0.000001615 * Species Name^1*Species Quantity^1 + -0.000001107 * Species Name^1*Flight Impact^1 + -0.000007393 * Species Name^1*Fatalities^1 + -0.000007898 * Species Name^1*Injuries^1 + 0.000000519 * Species Name^1*Radome Strike^1 + -0.000003730 * Species Name^1*Radome Damage^1 + 0.000002222 * Species Name^1*Windshield Strike^1 + 0.000082887 * Species Name^1*Windshield Damage^1 + -0.000000617 * Species Name^1*Nose Strike^1 + -0.000027624 * Species Name^1*Nose Damage^1 + 0.000010864 * Species Name^1*Engine1 Strike^1 + -0.000014502 * Species Name^1*Engine1 Damage^1 + -0.000003242 * Species Name^1*Engine2 Strike^1 + 0.000003808 * Species Name^1*Engine2 Damage^1 + -0.000019182 * Species Name^1*Engine3 Strike^1 + 0.000017216 * Species Name^1*Engine3 Damage^1 + -0.000014197 * Species Name^1*Engine4 Strike^1 + -0.000020098 * Species Name^1*Engine4 Damage^1 + 0.000004435 * Species Name^1*Engine Ingested^1 + 0.000004942 * Species Name^1*Propeller Strike^1 + -0.000045918 * Species Name^1*Propeller Damage^1 + 0.000003025 * Species Name^1*Wing or Rotor Strike^1 + -0.000027742 * Species Name^1*Wing or Rotor Damage^1 + -0.000002063 * Species Name^1*Fuselage Strike^1 + -0.000121676 * Species Name^1*Fuselage Damage^1 + -0.000010473 * Species Name^1*Landing Gear Strike^1 + -0.000206275 * Species Name^1*Landing Gear Damage^1 + 0.000015382 * Species Name^1*Tail Strike^1 + -0.000194449 * Species Name^1*Tail Damage^1 + -0.000160524 * Species Name^1*Lights Strike^1 + 0.000160618 * Species Name^1*Lights Damage^1 + -0.000002998 * Species Name^1*Other Strike^1 + 0.000029096 * Species Name^1*Other Damage^1 + -0.000407571 * Species Quantity^2 + -0.000072097 * Species Quantity^1*Flight Impact^1 + 0.074965407 * Species Quantity^1*Fatalities^1 + -0.016570052 * Species Quantity^1*Injuries^1 + 0.001546501 * Species Quantity^1*Radome Strike^1 + -0.055781646 * Species Quantity^1*Radome Damage^1 + -0.000653475 * Species Quantity^1*Windshield Strike^1 + -0.020927238 * Species Quantity^1*Windshield Damage^1 + 0.002106916 * Species Quantity^1*Nose Strike^1 + 0.008252167 * Species Quantity^1*Nose Damage^1 + 0.014724335 * Species Quantity^1*Engine1 Strike^1 + -0.053754888 * Species Quantity^1*Engine1 Damage^1 + 0.006458423 * Species Quantity^1*Engine2 Strike^1 + -0.029385521 * Species Quantity^1*Engine2 Damage^1 + 0.008540144 * Species

Quantity^1*Engine3 Strike^1 + -0.022932150 * Species Quantity^1*Engine3 Damage^1 + 0.005367459 * Species Quantity^1*Engine4 Strike^1 + -0.022872441 * Species Quantity^1*Engine4 Damage^1 + 0.007169523 * Species Quantity^1*Engine Ingested^1 + -0.006452988 * Species Quantity^1*Propeller Strike^1 + 0.039722023 * Species Quantity^1*Propeller Damage^1 + 0.002422877 * Species Quantity^1*Wing or Rotor Strike^1 + -0.036043614 * Species Quantity^1*Wing or Rotor Damage^1 + -0.001433326 * Species Quantity^1*Fuselage Strike^1 + -0.048279582 * Species Quantity^1*Fuselage Damage^1 + -0.000423662 * Species Quantity^1*Landing Gear Strike^1 + -0.053727865 * Species Quantity^1*Landing Gear Damage^1 + 0.010868857 * Species Quantity^1*Tail Strike^1 + 0.005518715 * Species Quantity^1*Tail Damage^1 + 0.000013215 * Species Quantity^1*Lights Strike^1 + 0.012192780 * Species Quantity^1*Lights Damage^1 + 0.002241478 * Species Quantity^1*Other Strike^1 + -0.005653148 * Species Quantity^1*Other Damage^1 + 0.000097852 * Flight Impact^2 + -0.000504911 * Flight Impact^1*Fatalities^1 + 0.006501531 *Flight Impact^1*Injuries^1 + 0.000501439 * Flight Impact^1*Radome Strike^1 + -0.008829766 * Flight Impact^1*Radome Damage^1 + 0.000219551 * Flight Impact^1*Windshield Strike^1 + 0.010224117 * Flight Impact^1*Windshield Damage^1 + 0.001221271 * Flight Impact^1*Nose Strike^1 + -0.014848032 * Flight Impact^1*Nose Damage^1 + 0.001589816 * Flight Impact^1*Engine1 Strike^1 + 0.002588410 * Flight Impact^1*Engine1 Damage^1 + 0.003197483 * Flight Impact^1*Engine2 Strike^1 + 0.001358787 * Flight Impact^1*Engine2 Damage^1 + 0.004002156 * Flight Impact^1*Engine3 Strike^1 + -0.002866972 * Flight Impact^1*Engine3 Damage^1 + 0.002740243 * Flight Impact^1*Engine4 Strike^1 + 0.003171744 * Flight Impact^1*Engine4 Damage^1 + -0.004159788 * Flight Impact^1*Engine Ingested^1 + 0.002221506 * Flight Impact^1*Propeller Strike^1 + -0.005275395 * Flight Impact^1*Propeller Damage^1 + 0.000232341 * Flight Impact^1*Wing or Rotor Strike^1 + 0.000938584 * Flight Impact^1*Wing or Rotor Damage^1 + -0.001292272 * Flight Impact^1*Fuselage Strike^1 + 0.003990647 * Flight Impact^1*Fuselage Damage^1 + 0.001170616 * Flight Impact^1*Landing Gear Strike^1 + -0.010245908 * Flight Impact^1*Landing Gear Damage^1 + -0.001139063 * Flight Impact^1*Tail Strike^1 + -0.020826516 * Flight Impact^1*Tail Damage^1 + 0.034003197 * Flight Impact^1*Lights Strike^1 + -0.042319047 * Flight Impact^1*Lights Damage^1 + 0.000183328 * Flight Impact^1*Other Strike^1 + 0.002353893 * Flight Impact^1*Other Damage^1 + -0.059030621 * Fatalities^2 + -0.000388503 * Fatalities^1*Injuries^1 + -0.005963248 * Fatalities^1*Radome Strike^1 + -0.037531450 * Fatalities^1*Radome Damage^1 + -0.006988560 * Fatalities^1*Windshield Strike^1 + -0.024998877 * Fatalities^1*Windshield Damage^1 + 0.000372775 * Fatalities^1*Nose Strike^1 + 0.083444976 * Fatalities^1*Nose Damage^1 + -0.002612257 * Fatalities^1*Engine1 Strike^1 + 0.075539963 * Fatalities^1*Engine1 Damage^1 + -0.002226319 * Fatalities^1*Engine2 Strike^1 + 0.431385145 * Fatalities^1*Engine2 Damage^1 + 0.002426114 * Fatalities^1*Engine3 Strike^1 + -0.035072530 * Fatalities^1*Engine3 Damage^1 + -0.010740095 * Fatalities^1*Engine4 Strike^1 + 0.896751200 * Fatalities^1*Engine4 Damage^1 + 0.018050255 * Fatalities^1*Engine Ingested^1 + -0.017386037 * Fatalities^1*Propeller Strike^1 + 0.016780099 * Fatalities^1*Propeller Damage^1 + -0.005945959 * Fatalities^1*Wing or Rotor Strike^1 + -0.029053928 * Fatalities^1*Wing or Rotor Damage^1 + -0.005950587 * Fatalities^1*Fuselage Strike^1 + -0.046428527 * Fatalities^1*Fuselage Damage^1 + -0.010054584 * Fatalities^1*Landing Gear Strike^1 + -0.062358806 * Fatalities^1*Landing Gear Damage^1 +

0.008379211 * Fatalities^1*Tail Strike^1 + 0.032915789 * Fatalities^1*Tail Damage^1 + -0.002494180 * Fatalities^1*Lights Strike^1 + 0.121660338 * Fatalities^1*Lights Damage^1 + -0.003867760 * Fatalities^1*Other Strike^1 + 0.108234702 * Fatalities^1*Other Damage^1 + -0.004919771 * Injuries^2 + -0.029392814 * Injuries^1*Radome Strike^1 + -0.241434703 * Injuries^1*Radome Damage^1 + -0.067120556 * Injuries^1*Windshield Strike^1 + 0.013374850 * Injuries^1*Windshield Damage^1 + -0.008451988 * Injuries^1*Nose Strike^1 + 0.007247886 * Injuries^1*Nose Damage^1 + -0.020705599 * Injuries^1*Engine1 Strike^1 + -0.019274056 * Injuries^1*Engine1 Damage^1 + 0.266387005 * Injuries^1*Engine2 Strike^1 + -0.273681480 * Injuries^1*Engine2 Damage^1 + -0.002381651 * Injuries^1*Engine3 Strike^1 + 0.099260657 * Injuries^1*Engine3 Damage^1 + -0.101384548 * Injuries^1*Engine4 Strike^1 + -0.409263672 * Injuries^1*Engine4 Damage^1 + -0.025047882 * Injuries^1*Engine Ingested^1 + -0.025410515 * Injuries^1*Propeller Strike^1 + 0.039083066 * Injuries^1*Propeller Damage^1 + 0.038877997 * Injuries^1*Wing or Rotor Strike^1 + -0.038430640 * Injuries^1*Wing or Rotor Damage^1 + -0.003622794 * Injuries^1*Fuselage Strike^1 + -0.003350703 * Injuries^1*Fuselage Damage^1 + -0.125652566 * Injuries^1*Landing Gear Strike^1 + 0.094691821 * Injuries^1*Landing Gear Damage^1 + -0.009074030 * Injuries^1*Tail Strike^1 + 0.009345719 * Injuries^1*Tail Damage^1 + -0.090098127 * Injuries^1*Lights Strike^1 + 0.004284194 * Injuries^1*Lights Damage^1 + 0.017173618 * Injuries^1*Other Strike^1 + -0.010555967 * Injuries^1*Other Damage^1 + 0.106273209 * Radome Strike^2 + -0.543875604 * Radome Strike^1*Radome Damage^1 + 0.013462951 * Radome Strike^1*Windshield Strike^1 + -0.120961550 * Radome Strike^1*Windshield Damage^1 + 0.006981437 * Radome Strike^1*Nose Strike^1 + -0.035755738 * Radome Strike^1*Nose Damage^1 + 0.005900935 * Radome Strike^1*Engine1 Strike^1 + 0.005289965 * Radome Strike^1*Engine1 Damage^1 + 0.010311860 * Radome Strike^1*Engine2 Strike^1 + 0.026232781 * Radome Strike^1*Engine2 Damage^1 + 0.089082747 * Radome Strike^1*Engine3 Strike^1 + -0.072057780 * Radome Strike^1*Engine3 Damage^1 + 0.022513058 * Radome Strike^1*Engine4 Strike^1 + 0.004887155 * Radome Strike^1*Engine4 Damage^1 + -0.003620978 * Radome Strike^1*Engine Ingested^1 + -0.011222834 * Radome Strike^1*Propeller Strike^1 + 0.074979377 * Radome Strike^1*Propeller Damage^1 + 0.001867192 * Radome Strike^1*Wing or Rotor Strike^1 + 0.002549623 * Radome Strike^1*Wing or Rotor Damage^1 + 0.010197371 * Radome Strike^1*Fuselage Strike^1 + -0.190473861 * Radome Strike^1*Fuselage Damage^1 + -0.000690937 * Radome Strike^1*Landing Gear Strike^1 + -0.093981742 * Radome Strike^1*Landing Gear Damage^1 + 0.009915968 * Radome Strike^1*Tail Strike^1 + -0.273406524 * Radome Strike^1*Tail Damage^1 + 0.010050682 * Radome Strike^1*Lights Strike^1 + 0.018674852 * Radome Strike^1*Lights Damage^1 + 0.009659987 * Radome Strike^1*Other Strike^1 + 0.023377763 * Radome Strike^1*Other Damage^1 + 1.577030611 * Radome Damage^2 + -0.016365714 * Radome Damage^1*Windshield Strike^1 + -0.218577093 * Radome Damage^1*Windshield Damage^1 + 0.018624280 * Radome Damage^1*Nose Strike^1 + -0.634883238 * Radome Damage^1*Nose Damage^1 + 0.013641782 * Radome Damage^1*Engine1 Strike^1 + -0.337481373 * Radome Damage^1*Engine1 Damage^1 + 0.012198848 * Radome Damage^1*Engine2 Strike^1 + -0.386257057 * Radome Damage^1*Engine2 Damage^1 + -0.487385113 * Radome Damage^1*Engine3 Strike^1 + -0.922420200 * Radome Damage^1*Engine3 Damage^1 + 0.000000000 * Radome Damage^1*Engine4 Strike^1 + 0.416178838 * Radome Damage^1*Engine4 Damage^1 + -0.041654176 * Radome Damage^1*Engine Ingested^1 + 0.006739402 * Radome Damage^1*Propeller Strike^1 + -

0.062222111 * Radome Damage^1*Propeller Damage^1 + -0.020700934 * Radome Damage^1*Wing or Rotor Strike^1 + -0.388937475 * Radome Damage^1*Wing or Rotor Damage^1 + -0.043418322 * Radome Damage^1*Fuselage Strike^1 + -0.195115833 * Radome Damage^1*Fuselage Damage^1 + 0.058913952 * Radome Damage^1*Landing Gear Strike^1 + 0.113322696 * Radome Damage^1*Landing Gear Damage^1 + -0.206437040 * Radome Damage^1*Tail Strike^1 + 0.596841692 * Radome Damage^1*Tail Damage^1 + 0.258768915 * Radome Damage^1*Lights Strike^1 + -0.031028774 * Radome Damage^1*Lights Damage^1 + 0.042963726 * Radome Damage^1*Other Strike^1 + -0.594867686 * Radome Damage^1*Other Damage^1 + 0.228501106 * Windshield Strike^2 + 0.286653121 * Windshield Strike^1*Windshield Damage^1 + 0.016489467 * Windshield Strike^1*Nose Strike^1 + 0.017956110 * Windshield Strike^1*Nose Damage^1 + -0.008104333 * Windshield Strike^1*Engine1 Strike^1 + 0.031407433 * Windshield Strike^1*Engine1 Damage^1 + 0.000670295 * Windshield Strike^1*Engine2 Strike^1 + 0.023824235 * Windshield Strike^1*Engine2 Damage^1 + 0.011660678 * Windshield Strike^1*Engine3 Strike^1 +0.672519804 * Windshield Strike^1*Engine3 Damage^1 + -0.167020380 * Windshield Strike^1*Engine4 Strike^1 + 0.000000000 * Windshield Strike^1*Engine4 Damage^1 + -0.009062958 * Windshield Strike^1*Engine Ingested^1 + 0.017786359 * Windshield Strike^1*Propeller Strike^1 + -0.028011559 * Windshield Strike^1*Propeller Damage^1 + 0.011217859 * Windshield Strike^1*Wing or Rotor Strike^1 + -0.011476808 * Windshield Strike^1*Wing or Rotor Damage^1 + 0.008263304 * Windshield Strike^1*Fuselage Strike^1 + 0.002605088 * Windshield Strike^1*Fuselage Damage^1 + -0.017017154 * Windshield Strike^1*Landing Gear Strike^1 + -0.200154659 * Windshield Strike^1*Landing Gear Damage^1 + -0.000661286 * Windshield Strike^1*Tail Strike^1 + 0.046484465 * Windshield Strike^1*Tail Damage^1 + 0.108775762 * Windshield Strike^1*Lights Strike^1 + -0.108615673 * Windshield Strike^1*Lights Damage^1 + 0.010641334 * Windshield Strike^1*Other Strike^1 + 0.048114866 * Windshield Strike^1*Other Damage^1 + 0.223198039 * Windshield Damage^2 + 0.010488185 * Windshield Damage^1*Nose Strike^1 + -0.592104497 * Windshield Damage^1*Nose Damage^1 + -0.062101084 * Windshield Damage^1*Engine1 Strike^1 + 0.209265133 * Windshield Damage^1*Engine1 Damage^1 + -0.350793105 * Windshield Damage^1*Engine2 Strike^1 + -0.327744394 * Windshield Damage^1*Engine2 Damage^1 + -0.000000000 * Windshield Damage^1*Engine3 Strike^1 + -0.000000000 * Windshield Damage^1*Engine3 Damage^1 + 0.000000000 * Windshield Damage^1*Engine4 Strike^1 + 0.000000000 * Windshield Damage^1*Engine4 Damage^1 + -0.196257565 * Windshield Damage^1*Engine Ingested^1 + -0.141060382 * Windshield Damage^1*Propeller Strike^1 + 0.033467883 * Windshield Damage^1*Propeller Damage^1 + 0.060485032 * Windshield Damage^1*Wing or Rotor Strike^1 + -0.637128264 * Windshield Damage^1*Wing or Rotor Damage^1 + 0.049495290 * Windshield Damage^1*Fuselage Strike^1 + -0.479909636 * Windshield Damage^1*Fuselage Damage^1 + -0.060612982 * Windshield Damage^1*Landing Gear Strike^1 + -0.065705355 * Windshield Damage^1*Landing Gear Damage^1 + 0.099256551 * Windshield Damage^1*Tail Strike^1 + -0.414595179 * Windshield Damage^1*Tail Damage^1 + -1.163420209 * Windshield Damage^1*Lights Strike^1 + 0.826717697 * Windshield Damage^1*Lights Damage^1 + -0.039343316 * Windshield Damage^1*Other Strike^1 + -0.645132397 * Windshield Damage^1*Other Damage^1 + 0.000074555 * Nose Strike^2 + 0.021928512 * Nose Strike^1*Nose Damage^1 + 0.007843277 * Nose Strike^1*Engine1 Strike^1 + -0.016145913 * Nose Strike^1*Engine1 Damage^1 + -0.010618013 * Nose Strike^1*Engine2 Strike^1 + 0.044304309 * Nose Strike^1*Engine2

Damage^1 + 0.084975544 * Nose Strike^1*Engine3 Strike^1 + -0.056361812 * Nose Strike^1*Engine3 Damage^1 + -0.111298751 * Nose Strike^1*Engine4 Strike^1 + -0.000000000 * Nose Strike^1*Engine4 Damage^1 + -0.003154329 * Nose Strike^1*Engine Ingested^1 + 0.014464655 * Nose Strike^1*Propeller Strike^1 + -0.092151527 * Nose Strike^1*Propeller Damage^1 + 0.006814227 * Nose Strike^1*Wing or Rotor Strike^1 + -0.012411522 * Nose Strike^1*Wing or Rotor Damage^1 + 0.014109944 * Nose Strike^1*Fuselage Strike^1 + -0.064097539 * Nose Strike^1*Fuselage Damage^1 + 0.009435499 * Nose Strike^1*Landing Gear Strike^1 + 0.066901137 * Nose Strike^1*Landing Gear Damage^1 + -0.020041430 * Nose Strike^1*Tail Strike^1 + 0.108577553 * Nose Strike^1*Tail Damage^1 + -0.023895626 * Nose Strike^1*Lights Strike^1 + 0.084112911 * Nose Strike^1*Lights Damage^1 + 0.016178765 * Nose Strike^1*Other Strike^1 + 0.027198674 * Nose Strike^1*Other Damage^1 + 0.237699624 * Nose Damage^2 + -0.022924348 * Nose Damage^1*Engine1 Strike^1 + -0.136892152 * Nose Damage^1*Engine1 Damage^1 + -0.005311303 * Nose Damage^1*Engine2 Strike^1 + 0.150321757 * Nose Damage^1*Engine2Damage^1 + 0.349700997 * Nose Damage^1*Engine3 Strike^1 + -2.142179672 * Nose Damage^1*Engine3 Damage^1 + 0.000000000 * Nose Damage^1*Engine4 Strike^1 + 0.416178838 * Nose Damage^1*Engine4 Damage^1 + -0.077856857 * Nose Damage^1*Engine Ingested^1 + 0.011659600 * Nose Damage^1*Propeller Strike^1 + -0.161417914 * Nose Damage^1*Propeller Damage^1 + -0.064949562 * Nose Damage^1*Wing or Rotor Strike^1 + -0.191638083 * Nose Damage^1*Wing or Rotor Damage^1 + 0.024063419 * Nose Damage^1*Fuselage Strike^1 + -0.376384212 * Nose Damage^1*Fuselage Damage^1 + -0.097352831 * Nose Damage^1*Landing Gear Strike^1 + -0.180946152 * Nose Damage^1*Landing Gear Damage^1 + 0.066048153 * Nose Damage^1*Tail Strike^1 + -0.051187114 * Nose Damage^1*Tail Damage^1 + -0.535599583 * Nose Damage^1*Lights Strike^1 + 0.060658724 * Nose Damage^1*Lights Damage^1 + 0.111724379 * Nose Damage^1*Other Strike^1 + -0.525658581 * Nose Damage^1*Other Damage^1 + 0.079816736 * Engine1 Strike^2 + -0.018379651 * Engine1 Strike^1*Engine1 Damage^1 + 0.008971543 * Engine1 Strike^1*Engine2 Strike^1 + -0.040148725 * Engine1 Strike^1*Engine2 Damage^1 + -0.008995769 * Engine1 Strike^1*Engine3 Strike^1 + -0.899657492 * Engine1 Strike^1*Engine3 Damage^1 + -0.005725788 * Engine1 Strike^1*Engine4 Strike^1 + 0.000000000 * Engine1 Strike^1*Engine4 Damage^1 + -0.028690359 * Engine1 Strike^1*Engine Ingested^1 + -0.000548391 * Engine1 Strike^1*Propeller Strike^1 + 0.017568418 * Engine1 Strike^1*Propeller Damage^1 + 0.009049374 * Engine1 Strike^1*Wing or Rotor Strike^1 + 0.017708788 * Engine1 Strike^1*Wing or Rotor Damage^1 + 0.001429720 * Engine1 Strike^1*Fuselage Strike^1 + 0.019772825 * Engine1 Strike^1*Fuselage Damage^1 + -0.021907316 * Engine1 Strike^1*Landing Gear Strike^1 + 0.054621667 * Engine1 Strike^1*Landing Gear Damage^1 + -0.014298409 * Engine1 Strike^1*Tail Strike^1 + -0.210750239 * Engine1 Strike^1*Tail Damage^1 + -0.057627492 * Engine1 Strike^1*Lights Strike^1 + 0.015369571 * Engine1 Strike^1*Lights Damage^1 + 0.010778829 * Engine1 Strike^1*Other Strike^1 + 0.049778145 * Engine1 Strike^1*Other Damage^1 + 0.250398162 * Engine1 Damage^2 + -0.034735091 * Engine1 Damage^1*Engine2 Strike^1 + -0.604474645 * Engine1 Damage^1*Engine2 Damage^1 + 0.083991804 * Engine1 Damage^1*Engine3 Strike^1 + -0.035711028 * Engine1 Damage^1*Engine3 Damage^1 + 0.109101356 * Engine1 Damage^1*Engine4 Strike^1 + 0.416178838 * Engine1 Damage^1*Engine4 Damage^1 + 0.065139774 * Engine1 Damage^1*Engine Ingested^1 + -0.066928346 * Engine1

Damage^1*Propeller Strike^1 + -0.354163519 * Engine1 Damage^1*Propeller Damage^1 + 0.018287968 * Engine1 Damage^1*Wing or Rotor Strike^1 + -0.504591487 * Engine1 Damage^1*Wing or Rotor Damage^1 + -0.007273846 * Engine1 Damage^1*Fuselage Strike^1 + -0.136055735 * Engine1 Damage^1*Fuselage Damage^1 + -0.029917904 * Engine1 Damage^1*Landing Gear Strike^1 + -0.004176724 * Engine1 Damage^1*Landing Gear Damage^1 + -0.092506081 * Engine1 Damage^1*Tail Strike^1 + 0.144267837 * Engine1 Damage^1*Tail Damage^1 + 0.125131698 * Engine1 Damage^1*Lights Strike^1 + -0.280367024 * Engine1 Damage^1*Lights Damage^1 + -0.118692967 * Engine1 Damage^1*Other Strike^1 + -0.414107549 * Engine1 Damage^1*Other Damage^1 + -0.926443021 * Engine2 Strike^2 + -0.018013464 * Engine2 Strike^1*Engine2 Damage^1 + 0.026411632 * Engine2 Strike^1*Engine3 Strike^1 + 0.503548323 * Engine2 Strike^1*Engine3 Damage^1 + 0.079194003 * Engine2 Strike^1*Engine4 Strike^1 + -0.376513726 * Engine2 Strike^1*Engine4 Damage^1 + -0.024717257 * Engine2 Strike^1*Engine Ingested^1 + -0.000438419 * Engine2 Strike^1*Propeller Strike^1 + -0.055548091 * Engine2 Strike^1*Propeller Damage^1 + 0.011077458 * Engine2 Strike^1*Wing or Rotor Strike^1 +0.001898780 * Engine2 Strike^1*Wing or Rotor Damage^1 + 0.004765665 * Engine2 Strike^1*Fuselage Strike^1 + 0.035309653 * Engine2 Strike^1*Fuselage Damage^1 + -0.004406639 * Engine2 Strike^1*Landing Gear Strike^1 + 0.157341171 * Engine2 Strike^1*Landing Gear Damage^1 + -0.009036547 * Engine2 Strike^1*Tail Strike^1 + -0.093397205 * Engine2 Strike^1*Tail Damage^1 + -0.019959116 * Engine2 Strike^1*Lights Strike^1 + -0.118033433 * Engine2 Strike^1*Lights Damage^1 + 0.015295774 * Engine2 Strike^1*Other Strike^1 + 0.039534075 * Engine2 Strike^1*Other Damage^1 + 0.276430559 * Engine2 Damage^2 + 1.302630731 * Engine2 Damage^1*Engine3 Strike^1 + -1.601545971 * Engine2 Damage^1*Engine3 Damage^1 + -0.567814139 * Engine2 Damage^1*Engine4 Strike^1 + -1.903710706 * Engine2 Damage^1*Engine4 Damage^1 + 0.036266473 * Engine2 Damage^1*Engine Ingested^1 + -0.065417076 * Engine2 Damage^1*Propeller Strike^1 + -0.378504694 * Engine2 Damage^1*Propeller Damage^1 + -0.038920469 * Engine2 Damage^1*Wing or Rotor Strike^1 + -0.416740573 * Engine2 Damage^1*Wing or Rotor Damage^1 + -0.041175776 * Engine2 Damage^1*Fuselage Strike^1 + -0.208025328 * Engine2 Damage^1*Fuselage Damage^1 + 0.041113467 * Engine2 Damage^1*Landing Gear Strike^1 + -0.274084584 * Engine2 Damage^1*Landing Gear Damage^1 + -0.095366570 * Engine2 Damage^1*Tail Strike^1 + 0.091336920 * Engine2 Damage^1*Tail Damage^1 + -0.142987936 * Engine2 Damage^1*Lights Strike^1 + 0.060189760 * Engine2 Damage^1*Lights Damage^1 + -0.057742368 * Engine2 Damage^1*Other Strike^1 + -0.523699093 * Engine2 Damage^1*Other Damage^1 + -0.000340236 * Engine3 Strike^2 + 0.010313972 * Engine3 Strike^1*Engine3 Damage^1 + -0.004467688 * Engine3 Strike^1*Engine4 Strike^1 + -0.703720577 * Engine3 Strike^1*Engine4 Damage^1 + -0.043671086 * Engine3 Strike^1*Engine Ingested^1 + -0.022546873 * Engine3 Strike^1*Propeller Strike^1 + -0.069971437 * Engine3 Strike^1*Propeller Damage^1 + -0.003757719 * Engine3 Strike^1*Wing or Rotor Strike^1 + 0.053053553 * Engine3 Strike^1*Wing or Rotor Damage^1 + 0.028858414 * Engine3 Strike^1*Fuselage Strike^1 + -0.119544577 * Engine3 Strike^1*Fuselage Damage^1 + -0.003500912 * Engine3 Strike^1*Landing Gear Strike^1 + 0.455993634 * Engine3 Strike^1*Landing Gear Damage^1 + -0.041518416 * Engine3 Strike^1*Tail Strike^1 + -0.501556124 * Engine3 Strike^1*Tail Damage^1 + -0.157855542 * Engine3 Strike^1*Lights Strike^1 + 0.102403819 * Engine3 Strike^1*Lights Damage^1 + -0.042061334 * Engine3 Strike^1*Other Strike^1 + 0.006659735 * Engine3 Strike^1*Other

Damage^1 + 0.251996573 * Engine3 Damage^2 + 0.075265359 * Engine3 Damage^1*Engine4 Strike^1 + -0.287541739 * Engine3 Damage^1*Engine4 Damage^1 + 0.002400687 * Engine3 Damage^1*Engine Ingested^1 + 0.057604720 * Engine3 Damage^1*Propeller Strike^1 + -0.000000000 * Engine3 Damage^1*Propeller Damage^1 + 0.024580336 * Engine3 Damage^1*Wing or Rotor Strike^1 + -0.933997085 * Engine3 Damage^1*Wing or Rotor Damage^1 + -0.019520466 * Engine3 Damage^1*Fuselage Strike^1 + 1.115537958 * Engine3 Damage^1*Fuselage Damage^1 + -0.052338676 * Engine3 Damage^1*Landing Gear Strike^1 + -1.058534669 * Engine3 Damage^1*Landing Gear Damage^1 + 0.609575078 * Engine3 Damage^1*Tail Strike^1 + -0.085377286 * Engine3 Damage^1*Tail Damage^1 + -0.970975316 * Engine3 Damage^1*Lights Strike^1 + -0.554796478 * Engine3 Damage^1*Lights Damage^1 + -0.376299119 * Engine3 Damage^1*Other Strike^1 + -0.376299119 * Engine3 Damage^1*Other Damage^1 + -0.014483507 * Engine4 Strike^2 + -0.121065837 * Engine4 Strike^1*Engine4 Damage^1 + -0.044501550 * Engine4 Strike^1*Engine Ingested^1 + -0.033671331 * Engine4 Strike^1*Propeller Strike^1 + 0.239529326 * Engine4 Strike^1*Propeller Damage^1 + 0.040235352 * Engine4 Strike^1*Wing or Rotor Strike^1 +0.079017759 * Engine4 Strike^1*Wing or Rotor Damage^1 + -0.004826544 * Engine4 Strike^1*Fuselage Strike^1 + -0.949323751 * Engine4 Strike^1*Fuselage Damage^1 + 0.042098900 * Engine4 Strike^1*Landing Gear Strike^1 + 0.194541964 * Engine4 Strike^1*Landing Gear Damage^1 + -0.501556124 * Engine4 Strike^1*Tail Strike^1 + -0.501556124 * Engine4 Strike^1*Tail Damage^1 + 0.000000000 * Engine4 Strike^1*Lights Strike^1 + 0.000000000 * Engine4 Strike^1*Lights Damage^1 + 0.005104149 * Engine4 Strike^1*Other Strike^1 + 0.221565489 * Engine4 Strike^1*Other Damage^1 + 0.179350240 * Engine4 Damage^2 + -0.022116470 * Engine4 Damage^1*Engine Ingested^1 + -0.471694848 * Engine4 Damage^1*Propeller Strike^1 + -0.471694848 * Engine4 Damage^1*Propeller Damage^1 + -0.064666484 * Engine4 Damage^1*Wing or Rotor Strike^1 + -0.015330936 * Engine4 Damage^1*Wing or Rotor Damage^1 + 0.004887155 * Engine4 Damage^1*Fuselage Strike^1 + 0.416178838 * Engine4 Damage^1*Fuselage Damage^1 + 0.156285254 * Engine4 Damage^1*Landing Gear Strike^1 + -1.491319470 * Engine4 Damage^1*Landing Gear Damage^1 + -0.000000000 * Engine4 Damage^1*Tail Strike^1 + 0.416178838 * Engine4 Damage^1*Tail Damage^1 + -0.000000000 * Engine4 Damage^1*Lights Strike^1 + 0.416178838 * Engine4 Damage^1*Lights Damage^1 + -0.536017677 * Engine4 Damage^1*Other Strike^1 + -0.536017677 * Engine4 Damage^1*Other Damage^1 + 0.051895011 * Engine Ingested^2 + 0.016798414 * Engine Ingested^1*Propeller Strike^1 + -0.172026402 * Engine Ingested^1*Propeller Damage^1 + -0.004775858 * Engine Ingested^1*Wing or Rotor Strike^1 + -0.141127119 * Engine Ingested^1*Wing or Rotor Damage^1 + 0.014371980 * Engine Ingested^1*Fuselage Strike^1 + -0.083791068 * Engine Ingested^1*Fuselage Damage^1 + 0.016828374 * Engine Ingested^1*Landing Gear Strike^1 + -0.383711871 * Engine Ingested^1*Landing Gear Damage^1 + 0.013826323 * Engine Ingested^1*Tail Strike^1 + -0.203238746 * Engine Ingested^1*Tail Damage^1 + 0.037512202 * Engine Ingested^1*Lights Strike^1 + -0.126529355 * Engine Ingested^1*Lights Damage^1 + 0.013175482 * Engine Ingested^1*Other Strike^1 + -0.107162781 * Engine Ingested^1*Other Damage^1 + 0.087286009 * Propeller Strike^2 + 0.250919506 * Propeller Strike^1*Propeller Damage^1 + 0.024474625 * Propeller Strike^1*Wing or Rotor Strike^1 + -0.065453226 * Propeller Strike^1*Wing or Rotor Damage^1 + 0.008883965 * Propeller Strike^1*Fuselage Strike^1 + -0.029452518 * Propeller Strike^1*Fuselage Damage^1 + 0.010581036 * Propeller Strike^1*Landing Gear Strike^1 + -0.054816432 * Propeller Strike^1*Landing Gear Damage^1
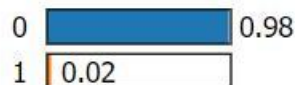
+ -0.000495849 * Propeller Strike^1*Tail Strike^1 + -0.175514632 * Propeller Strike^1*Tail Damage^1 + 0.141862728 * Propeller Strike^1*Lights Strike^1 + -0.305612254 * Propeller Strike^1*Lights Damage^1 + 0.031801358 * Propeller Strike^1*Other Strike^1 + -0.022755196 * Propeller Strike^1*Other Damage^1 + 0.020259137 * Propeller Damage^2 + -0.001142372 * Propeller Damage^1*Wing or Rotor Strike^1 + -0.235704412 * Propeller Damage^1*Wing or Rotor Damage^1 + 0.088314476 * Propeller Damage^1*Fuselage Strike^1 + -0.111251834 * Propeller Damage^1*Fuselage Damage^1 + -0.122828769 * Propeller Damage^1*Landing Gear Strike^1 + -0.203661989 * Propeller Damage^1*Landing Gear Damage^1 + 0.103233409 * Propeller Damage^1*Tail Strike^1 + 0.230229191 * Propeller Damage^1*Tail Damage^1 + -0.270781810 * Propeller Damage^1*Lights Strike^1 + 1.009777172 * Propeller Damage^1*Lights Damage^1 + -0.341049018 * Propeller Damage^1*Other Strike^1 + -0.097084094 * Propeller Damage^1*Other Damage^1 + -0.128816625 * Wing or Rotor Strike^2 + 0.112531402 * Wing or Rotor Strike^1*Wing or Rotor Damage^1 + 0.006288908 * Wing or Rotor Strike^1*Fuselage Strike^1 + -0.062112032 * Wing or Rotor Strike^1*Fuselage Damage^1 + 0.015800891 * Wing or Rotor Strike^1*Landing Gear Strike^1 + -0.081566075 *Wing or Rotor Strike^1*Landing Gear Damage^1 + -0.002641597 * Wing or Rotor Strike^1*Tail Strike^1 + -0.112575119 * Wing or Rotor Strike^1*Tail Damage^1 + -0.007567266 * Wing or Rotor Strike^1*Lights Strike^1 + 0.009576047 * Wing or Rotor Strike^1*Lights Damage^1 + 0.019117302 * Wing or Rotor Strike^1*Other Strike^1 + -0.076367136 * Wing or Rotor Strike^1*Other Damage^1 + 0.583718871 * Wing or Rotor Damage^2 + 0.009302396 * Wing or Rotor Damage^1*Fuselage Strike^1 + -0.271457408 * Wing or Rotor Damage^1*Fuselage Damage^1 + -0.011147672 * Wing or Rotor Damage^1*Landing Gear Strike^1 + -0.402456627 * Wing or Rotor Damage^1*Landing Gear Damage^1 + -0.019965953 * Wing or Rotor Damage^1*Tail Strike^1 + -0.382795228 * Wing or Rotor Damage^1*Tail Damage^1 + 0.078636858 * Wing or Rotor Damage^1*Lights Strike^1 + -0.796572494 * Wing or Rotor Damage^1*Lights Damage^1 + -0.030423804 * Wing or Rotor Damage^1*Other Strike^1 + -0.440562668 * Wing or Rotor Damage^1*Other Damage^1 + 0.010392917 * Fuselage Strike^2 + 0.019317714 * Fuselage Strike^1*Fuselage Damage^1 + 0.012537080 * Fuselage Strike^1*Landing Gear Strike^1 + 0.014609787 * Fuselage Strike^1*Landing Gear Damage^1 + 0.010566648 * Fuselage Strike^1*Tail Strike^1 + 0.028296908 * Fuselage Strike^1*Tail Damage^1 + -0.026904652 * Fuselage Strike^1*Lights Strike^1 + 0.112923859 * Fuselage Strike^1*Lights Damage^1 + 0.013600005 * Fuselage Strike^1*Other Strike^1 + -0.007795760 * Fuselage Strike^1*Other Damage^1 + 0.335536363 * Fuselage Damage^2 + 0.073647600 * Fuselage Damage^1*Landing Gear Strike^1 + -0.236114043 * Fuselage Damage^1*Landing Gear Damage^1 + -0.030835730 * Fuselage Damage^1*Tail Strike^1 + -0.279473921 * Fuselage Damage^1*Tail Damage^1 + -0.409832918 * Fuselage Damage^1*Lights Strike^1 + 0.228964130 * Fuselage Damage^1*Lights Damage^1 + -0.152603890 * Fuselage Damage^1*Other Strike^1 + -0.031971627 * Fuselage Damage^1*Other Damage^1 + 0.459444134 * Landing Gear Strike^2 + 0.009476550 * Landing Gear Strike^1*Landing Gear Damage^1 + 0.021578362 * Landing Gear Strike^1*Tail Strike^1 + -0.234295581 * Landing Gear Strike^1*Tail Damage^1 + 0.037552212 * Landing Gear Strike^1*Lights Strike^1 + -0.006848401 * Landing Gear Strike^1*Lights Damage^1 + 0.001019652 * Landing Gear Strike^1*Other Strike^1 + -0.007736370 * Landing Gear Strike^1*Other Damage^1 + 0.262086945 * Landing Gear Damage^2 + -0.080766656 * Landing Gear Damage^1*Tail Strike^1 + 0.252016537 * Landing Gear Damage^1*Tail Damage^1 + -0.088672716 * Landing Gear Damage^1*Lights Strike^1 + -0.465827066 *

Landing Gear Damage^1*Lights Damage^1 + -0.060785587 * Landing Gear Damage^1*Other Strike^1 + -0.273654196 * Landing Gear Damage^1*Other Damage^1 + -0.004189282 * Tail Strike^2 + 0.163411922 * Tail Strike^1*Tail Damage^1 + 0.027158836 * Tail Strike^1*Lights Strike^1 + -0.318328518 * Tail Strike^1*Lights Damage^1 + 0.057837769 * Tail Strike^1*Other Strike^1 + 0.041768393 * Tail Strike^1*Other Damage^1 + 0.153204765 * Tail Damage^2 + -0.305657469 * Tail Damage^1*Lights Strike^1 + 0.440709658 * Tail Damage^1*Lights Damage^1 + -0.241920566 * Tail Damage^1*Other Strike^1 + -0.278536330 * Tail Damage^1*Other Damage^1 + 0.359588067 * Lights Strike^2 + -0.515847306 * Lights Strike^1*Lights Damage^1 + 0.097603484 * Lights Strike^1*Other Strike^1 + -0.442409424 * Lights Strike^1*Other Damage^1 + 0.122949742 * Lights Damage^2 + -0.152301528 * Lights Damage^1*Other Strike^1 + 0.140946952 * Lights Damage^1*Other Damage^1 + -0.073053788 * Other Strike^2 + 0.104807864 * Other Strike^1*Other Damage^1 + 0.145455842 * Other Damage^2
Accuracy: 0.7710679645534083

PROBABILITY OF PREDICTION VALUES:

Prediction probabilities

|		
0		0.98
1	0.02	

0   **1**

Record ID > 130575.00
0.04

450.00 < Species ID ...
0.03

Engine4 Strike <= 0.00
0.02

378.00 < Operator <= 4...
0.02

Engine3 Strike <= 0.00
0.02

366.00 < Operator ID ...
0.02

Engine3 Damage <=...
0.02

Lights Damage <= 0.00
0.02

Windshield Damage <=...
0.02

Engine2 Damage <=...
0.02

5.00 < Height <= 112.95
0.01

Tail Strike <= 0.00
0.01

Tail Damage <= 0.00
0.01

Radome Damage <=...
0.01

Propeller Damage <=...
0.01

Engine4 Damage <=...
0.01

Injuries <= 0.33
0.01

Landing Gear Damage ...
0.01

Lights Strike <= 0.00
0.01

483.00 < Airport <= 11...
0.01

Engine4 Position <=...
0.01

Species Name > 622.00
0.01

```
                                    0.01
        Engine4 Position <=...
                                    0.01
                                          Species Name > 622.00
                                          0.01
        Fuselage Damage <=...
                                    0.01
                                          69.00 < Aircraft <= 2...
                                          0.01
                                          Engine Ingested <= 0.00
                                          0.01
                                          Engine1 Damage <=...
                                          0.01
        Other Damage <= 0.00
                                    0.01
                                          10.00 < Aircraft Make...
                                          0.01
                                          Propeller Strike <= 0.00
                                          0.00
                                          Aircraft Model <= 35.00
                                          0.00
  1.00 < Engine1 Positio...
                                    0.00
  769.00 < Airport ID <...
                                    0.00
                                          12.00 < State <= 32.00
                                          0.00
                                          Landing Gear Strike ...
                                          0.00
                                          Windshield Strike <=...
                                          0.00
                                          Wing or Rotor Strike >...
                                          0.00
        Flight Impact <= 3.00
                                    0.00
                                          Radome Strike <= 0.00
                                          0.00
        Engine2 Strike <= 0.00
                                    0.00
                                          1.92 < Engine2 Positio...
                                          0.00
                                          Nose Strike <= 0.00
                                          0.00
                                          Nose Damage <= 0.00
                                          0.00
  123.00 < Speed <= 1...
```
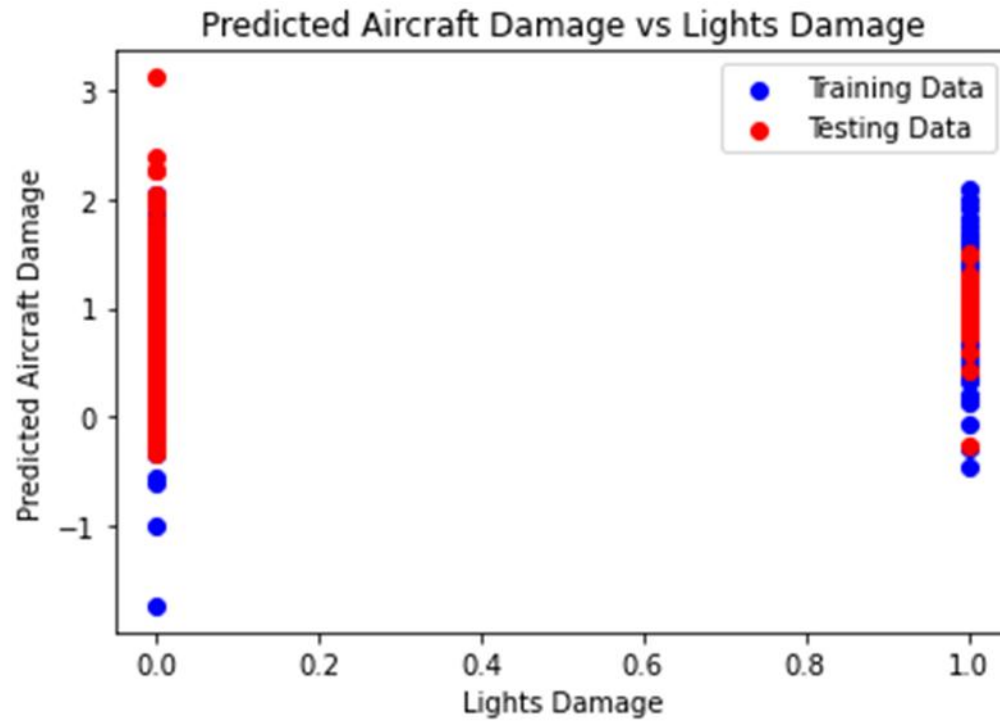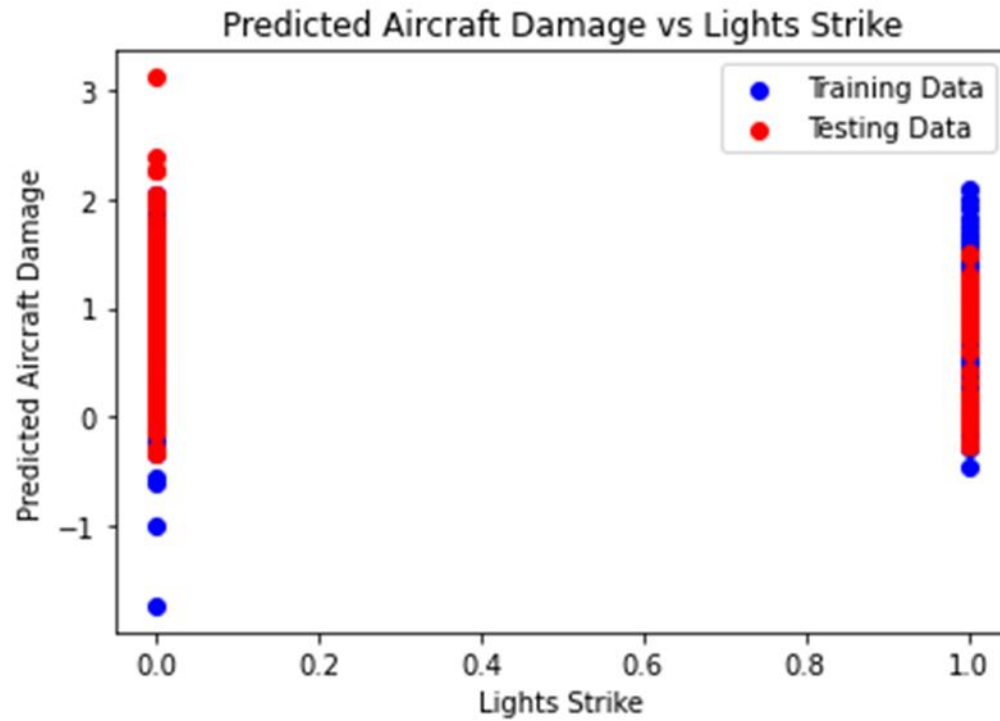
Graphs:

This breakdown provides insight into various aspects of the incident, including aircraft details, environmental conditions, potential damages, and outcomes. It's essential for understanding the context and implications of the incident.

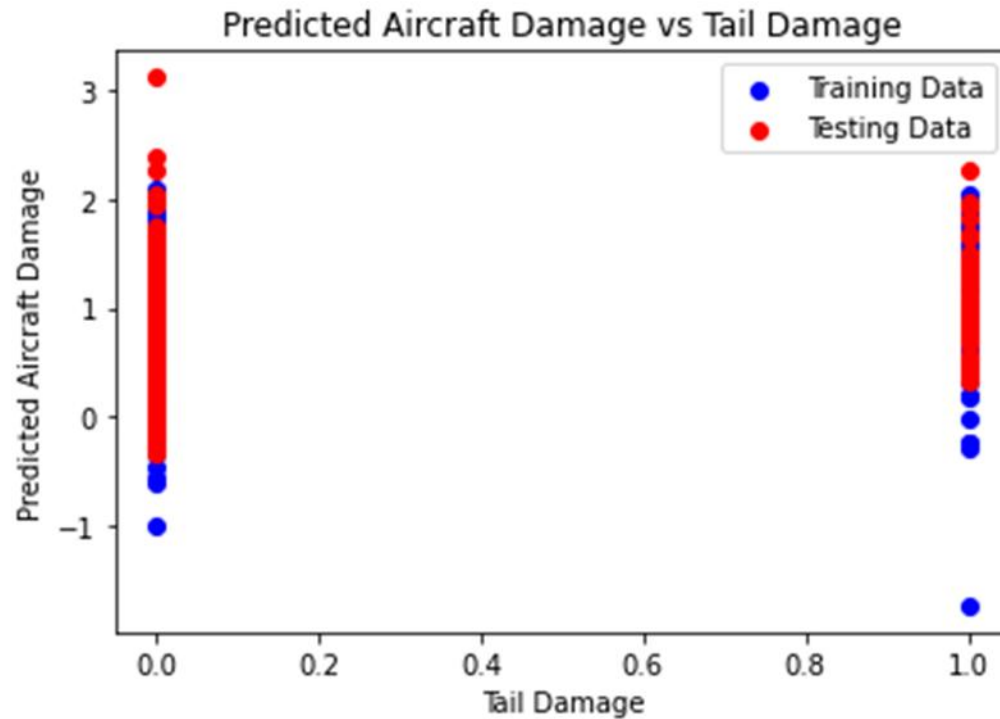Predicted Aircraft Damage vs Other Damage
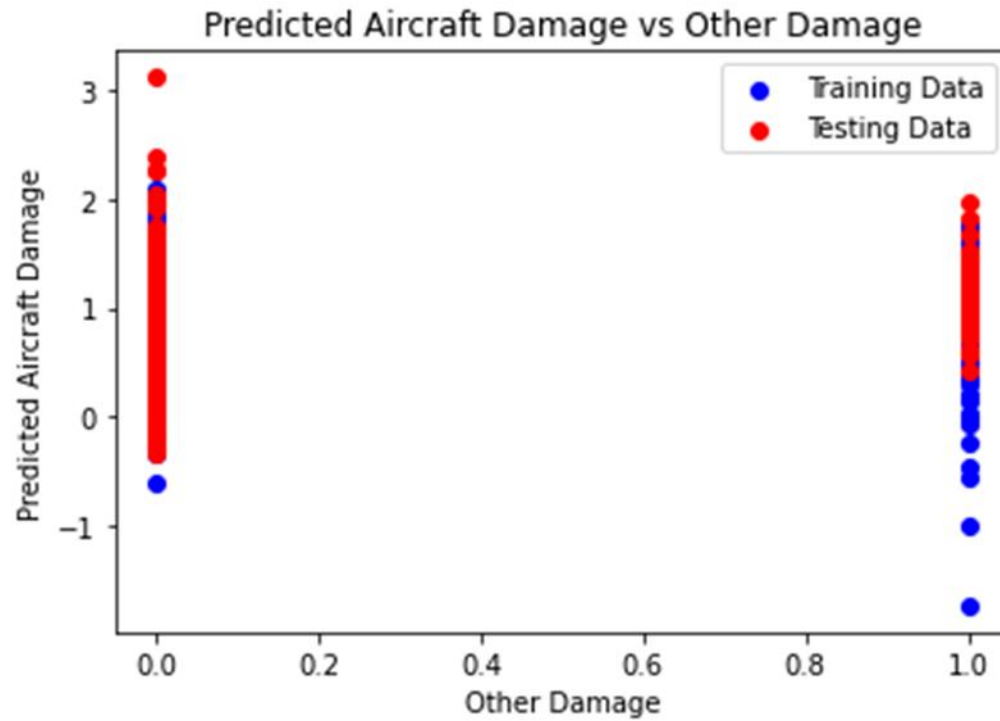
The graph illustrates the predicted aircraft damage relative to other damage, with the x-axis representing the percentage of other damage and the y-axis indicating the percentage of predicted aircraft damage. Data points are categorized into training data (depicted as blue circles) and testing data (illustrated as red). The graph demonstrates a predominant trend wherein the model consistently predicts higher levels of aircraft damage compared to other damage across varying levels of other damage percentages. Notably, there is a discernible upward trajectory indicating that as the percentage of other damage increases, so does the predicted percentage of aircraft damage. However, it is essential to acknowledge the inherent variability in the model's predictions, as evident by the scatter of data points, signifying that actual damage may deviate from the predicted values. Thus, while the model demonstrates an ability to discern patterns associated with aircraft damage, its predictions are subject to uncertainty, emphasizing the importance of cautious interpretation and acknowledgment of its limitations as a predictive tool.
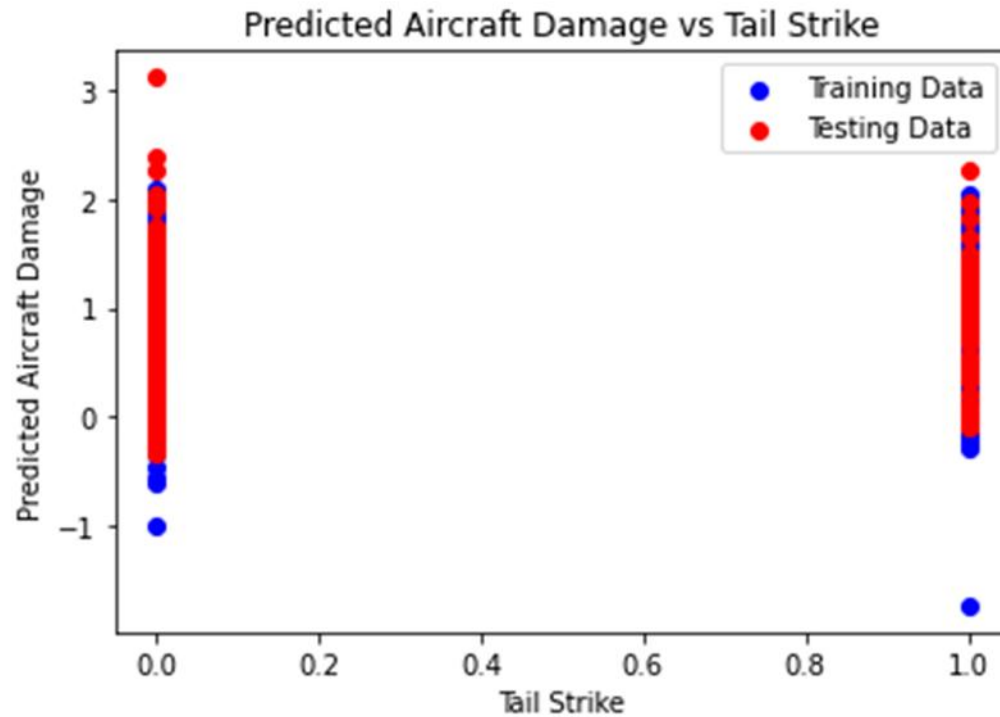
Predicted Aircraft Damage vs Other Strike

The provided plot juxtaposes the predicted aircraft damage against the percentage of other strike instances, with a red line representing the predicted aircraft damage and a blue line denoting the percentage of other strike. Data points are categorized into training data represented by blue circles and testing data depicted as red. Notably, a prevalent observation is that the predicted aircraft damage tends to surpass the percentage of other strike, as indicated by the majority of data points lying above the diagonal line. This discrepancy suggests a consistent tendency for the model to predict higher levels of aircraft damage compared to the observed percentage of other strike instances. Additionally, a discernible positive correlation is evident between predicted aircraft damage and other strike, signified by the upward trajectory in the graph, particularly noticeable within the training data. However, the presence of scatter among data points, particularly within the testing data, underscores the model's imperfection, implying potential variability in predictions for equivalent levels of other strike. Hence, while the model demonstrates an aptitude for discerning patterns associated with aircraft damage, caution must be exercised in interpreting its predictions, recognizing the inherent uncertainties and limitations inherent to predictive modeling, particularly when extrapolating to unseen data.

Predicted Aircraft Damage vs Lights Damage

The graph provided illustrates the comparison between predicted aircraft damage and lights damage, with red dots representing the percentage of predicted aircraft damage and blue dots indicating the percentage of lights damage. The x-axis denotes lights damage, while the y-axis represents predicted aircraft damage, with data points categorized into training data (depicted as blue dots) and testing data (illustrated as red dots). Notably, a predominant observation is the tendency for the model to predict higher levels of aircraft damage relative to lights damage, with the majority of data points lying above the diagonal line. This disparity suggests the model's inclination towards overestimating aircraft damage in comparison to lights damage. Additionally, a discernible positive correlation is evident between predicted aircraft damage and lights damage, evidenced by the upward trend in the graph, particularly pronounced within the training data. However, the presence of scattered data points, particularly noticeable within the testing data, underscores the imperfection of the model's predictions, suggesting potential variability in predictions for equivalent levels of lights damage. Thus, while the model demonstrates proficiency in identifying patterns associated with aircraft damage, caution must be exercised in interpreting its predictions, acknowledging inherent uncertainties and limitations, especially when applied to unseen data.

Predicted Aircraft Damage vs Lights Strike

The provided graph depicts the comparison between predicted aircraft damage and lights strike, with red dots representing the percentage of predicted aircraft damage and blue dots representing the training data. The x-axis signifies lights strike, while the y-axis denotes predicted aircraft damage. It is evident that the model tends to predict higher levels of aircraft damage relative to lights strike, as the majority of data points lie above the diagonal line. For instance, at 20% lights strike, the model predicts approximately 80% aircraft damage. Moreover, a discernible positive correlation is observed between predicted aircraft damage and lights strike, with an evident upward trend in the graph, particularly pronounced within the training data. Nevertheless, the presence of scattered data points, notably within the testing data, underscores the model's imperfect predictions, implying potential variability in predictions for equivalent levels of lights strike. Consequently, while the model demonstrates proficiency in identifying patterns associated with aircraft damage, caution must be exercised in interpreting its predictions, recognizing inherent uncertainties and limitations, especially when applied to unseen data.
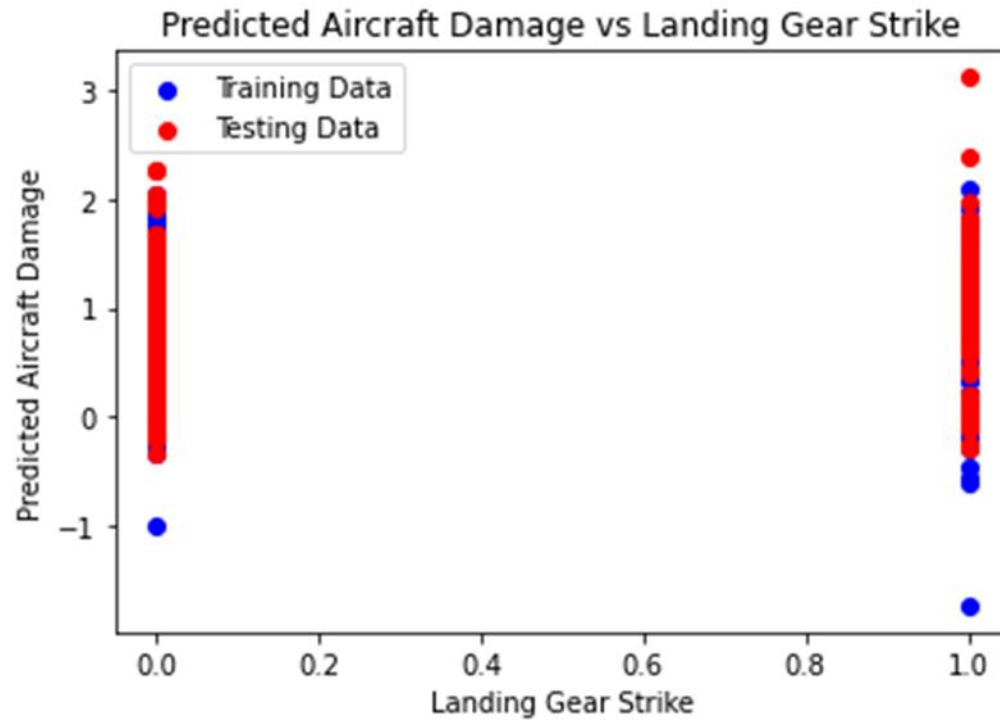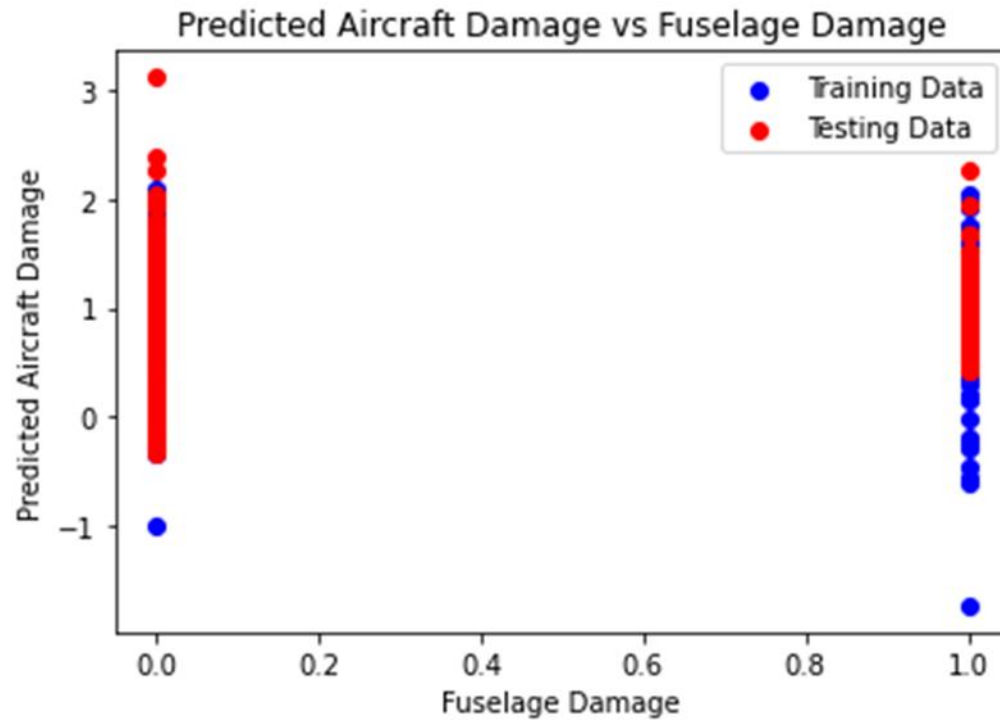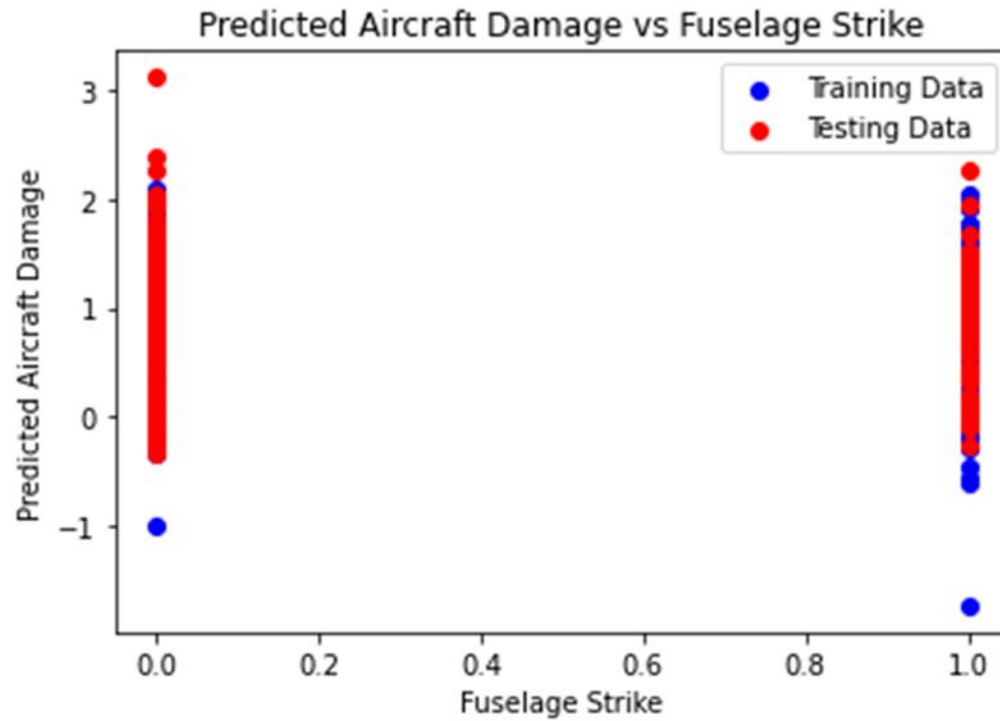
Predicted Aircraft Damage vs Tail Damage

The provided plot illustrates the relationship between predicted aircraft damage and tail damage, with the red line representing the predicted aircraft damage and the blue line denoting the training data. The x-axis depicts tail damage, while the y-axis signifies predicted aircraft damage. Training data points exhibit dispersion around the red line, implying the model's ability to discern the association between tail damage and aircraft damage to a certain extent. Nonetheless, the presence of scatter in the data suggests the model's imperfection and inherent uncertainty in its predictions. Discrepancy between the blue and red lines indicates model error, attributable to various factors such as data noise, model limitations, or unaccounted factors. Overall, the plot suggests a positive correlation between tail damage and predicted aircraft damage, implying an increase in predicted aircraft damage with rising tail damage. However, caution must be exercised in interpreting the model's predictions, recognizing its inherent imperfections and associated uncertainties.

Predicted Aircraft Damage vs Tail Strike

The graph provided illustrates the relationship between predicted aircraft damage and tail strike, with the red line representing the predicted aircraft damage and the blue line representing the training data. The x-axis denotes tail strike, while the y-axis signifies predicted aircraft damage. Training data points exhibit dispersion around the red line, suggesting the model's ability to discern the association between tail strike and aircraft damage to some extent. However, the presence of scatter in the data indicates the model's imperfection and inherent uncertainty in its predictions. Discrepancy between the blue and red lines denotes model error, attributed to factors such as data noise, model limitations, or unaccounted factors. Overall, the plot implies a positive correlation between tail strike and predicted aircraft damage, indicating an increase in predicted

aircraft damage with escalating tail strike occurrences. Nonetheless, it is essential to
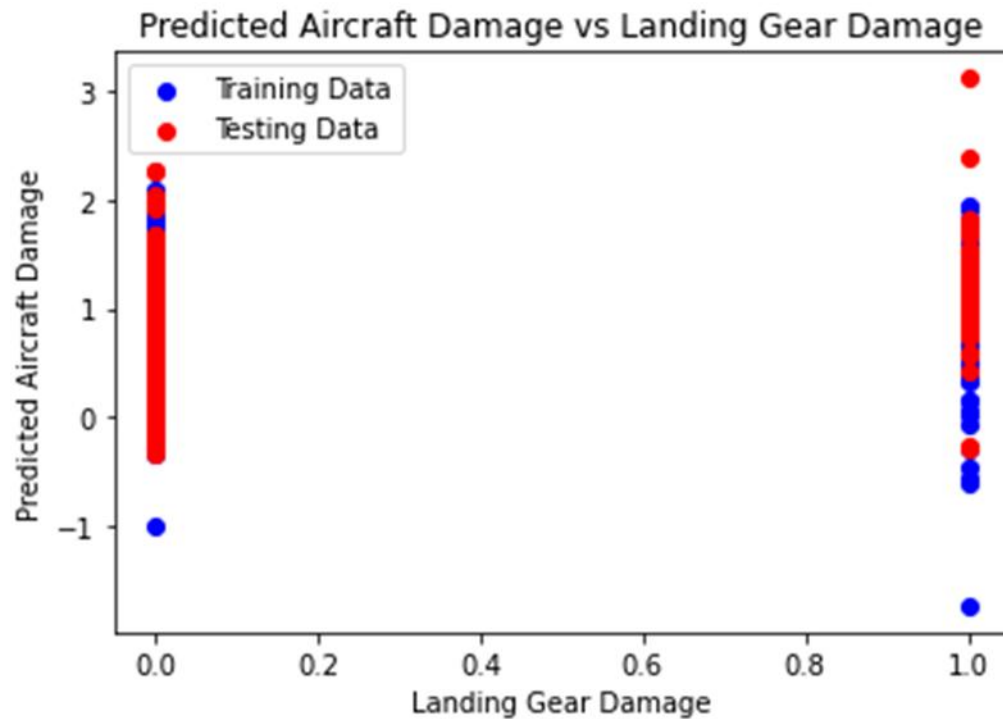
predictions.

The provided plot illustrates the relationship between predicted aircraft damage and landing gear damage, with the red line representing the predicted aircraft damage and the blue line depicting the training data. The x-axis represents landing gear damage, while the y-axis signifies predicted aircraft damage. Notably, training data points display dispersion around the red line, indicating the model's capacity to comprehend the association between landing gear damage and aircraft damage to a certain extent. However, the presence of scatter in the data suggests imperfection and inherent uncertainty in the model's predictions. Disparity between the blue and red lines denotes model error, likely attributable to factors such as data noise, model constraints, or unaccounted variables. Overall, the plot implies a positive correlation between landing gear damage and predicted aircraft damage, indicating an anticipated rise in aircraft damage with escalating landing gear damage occurrences. Nonetheless, it is imperative to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.

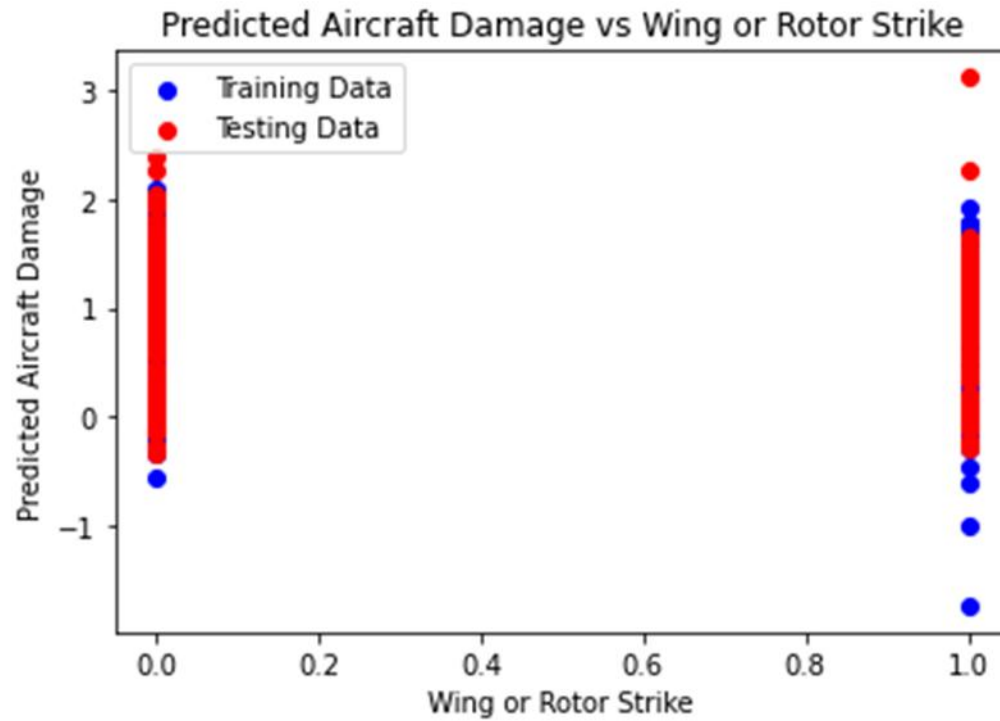Predicted Aircraft Damage vs Landing Gear Strike

The provided plot illustrates the relationship between predicted aircraft damage and landing gear strike. The x-axis quantifies landing gear strike on a scale of 0 to 1, while the y-axis represents predicted aircraft damage on a scale of -1 to 3. Testing data points exhibit dispersion around the red line, suggesting the model's ability to comprehend the relationship between landing gear strike and aircraft damage to some extent. However, the presence of scatter in the data indicates imperfections and inherent uncertainty in the model's predictions. Discrepancy between the blue and red lines signifies model error, potentially stemming from factors such as data noise, model limitations, or unaccounted variables. Overall, the plot implies a positive correlation between landing gear strike and predicted aircraft damage, indicating an anticipated increase in aircraft damage with higher landing gear strike values. Nevertheless, it is essential to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.
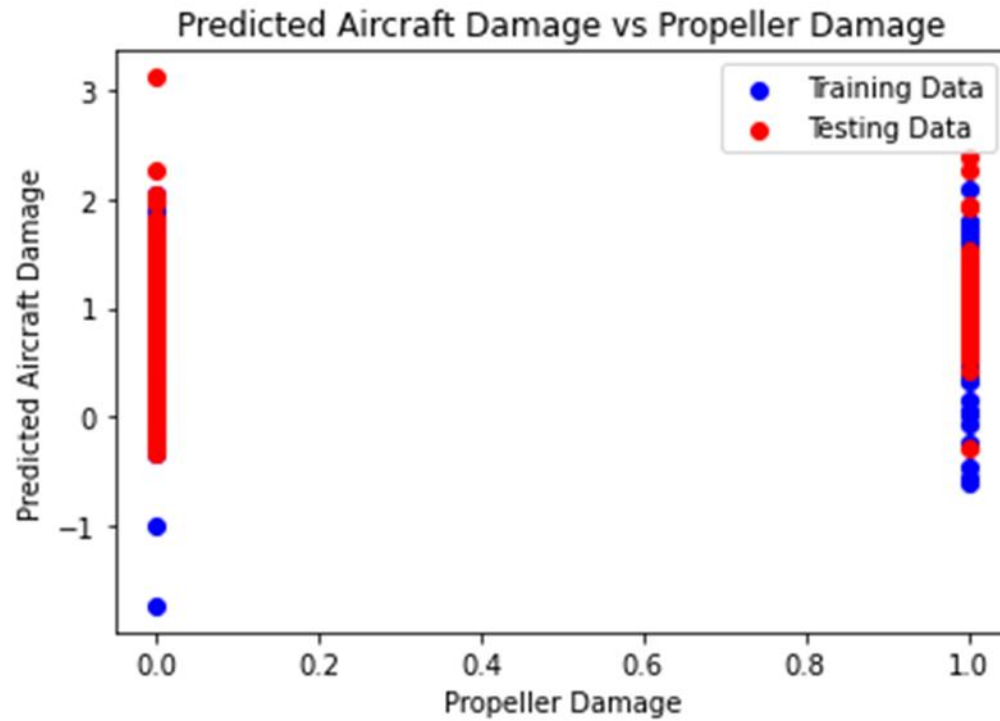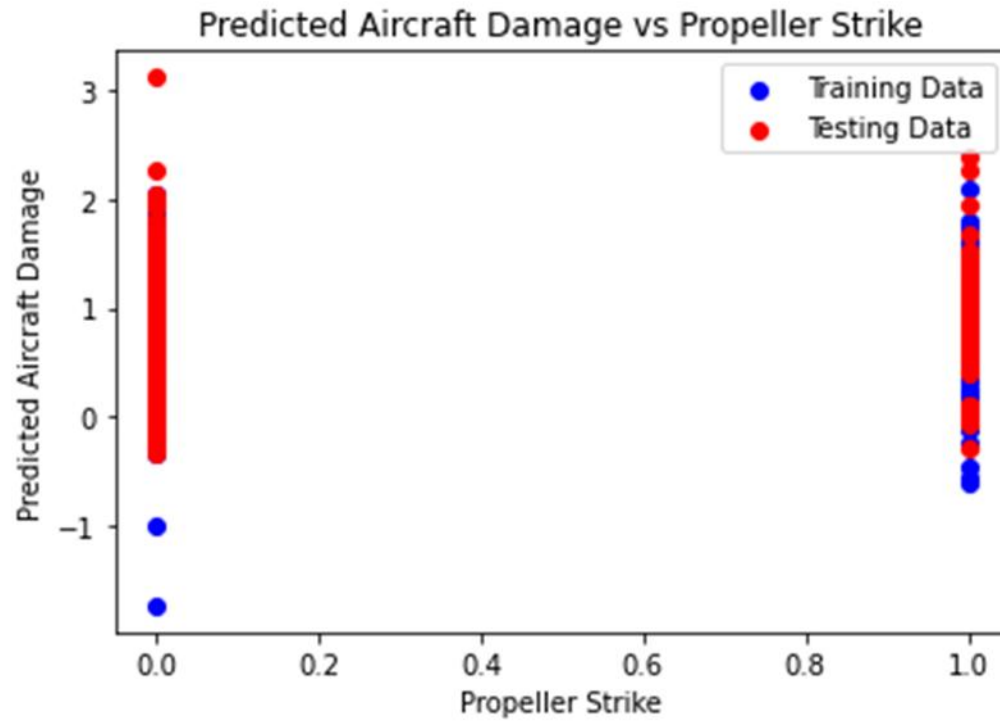
Predicted Aircraft Damage vs Fuselage Damage

The provided plot depicts the relationship between predicted aircraft damage and landing gear strike. The x-axis quantifies landing gear strike on a scale of 0 to 1, while the y-axis represents predicted aircraft damage on a scale of -1 to 3. Testing data points exhibit dispersion around the red line, implying the model's partial comprehension of the association between landing gear strike and aircraft damage. However, the presence of scatter in the data suggests imperfections and inherent uncertainty in the model's predictions. Discrepancy between the blue and red lines indicates model error, potentially stemming from factors such as data noise, model constraints, or unaccounted variables. Overall, the plot implies a positive correlation between landing gear strike and predicted aircraft damage, indicating an expected increase in aircraft damage with higher landing gear strike values. Nevertheless, it is paramount to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.
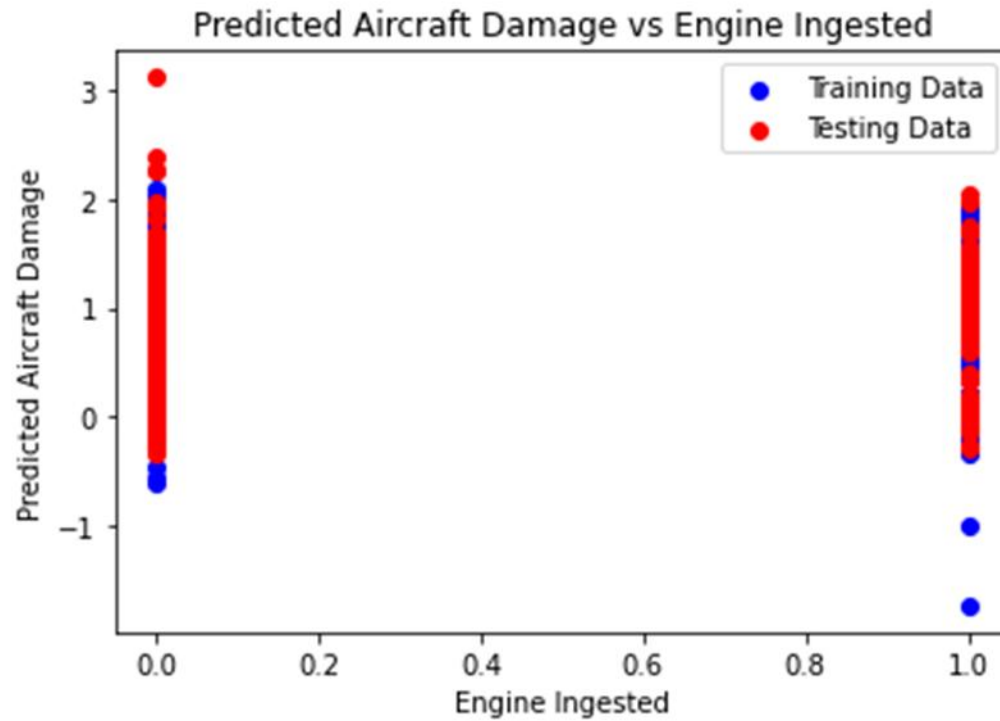
Predicted Aircraft Damage vs Fuselage Strike

The presented plot illustrates the relationship between predicted aircraft damage and fuselage strike. On the x-axis, fuselage strike is scaled from 0 to 1, while the y-axis denotes predicted aircraft damage on a scale of -1 to 3. The dispersion of testing data points around the red line indicates the model's capability to discern the association between fuselage strike and aircraft damage to a certain extent. However, the presence of scatter in the data suggests imperfections and inherent uncertainty in the model's predictions. Disparity between the blue and red lines suggests model error, likely arising from factors such as data noise, model constraints, or unaccounted variables. Overall, the plot implies a positive correlation between fuselage strike and predicted aircraft damage, suggesting an anticipated increase in aircraft damage with higher fuselage strike values. Nonetheless, it is crucial to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.

Predicted Aircraft Damage vs Wing or Rotor Damage
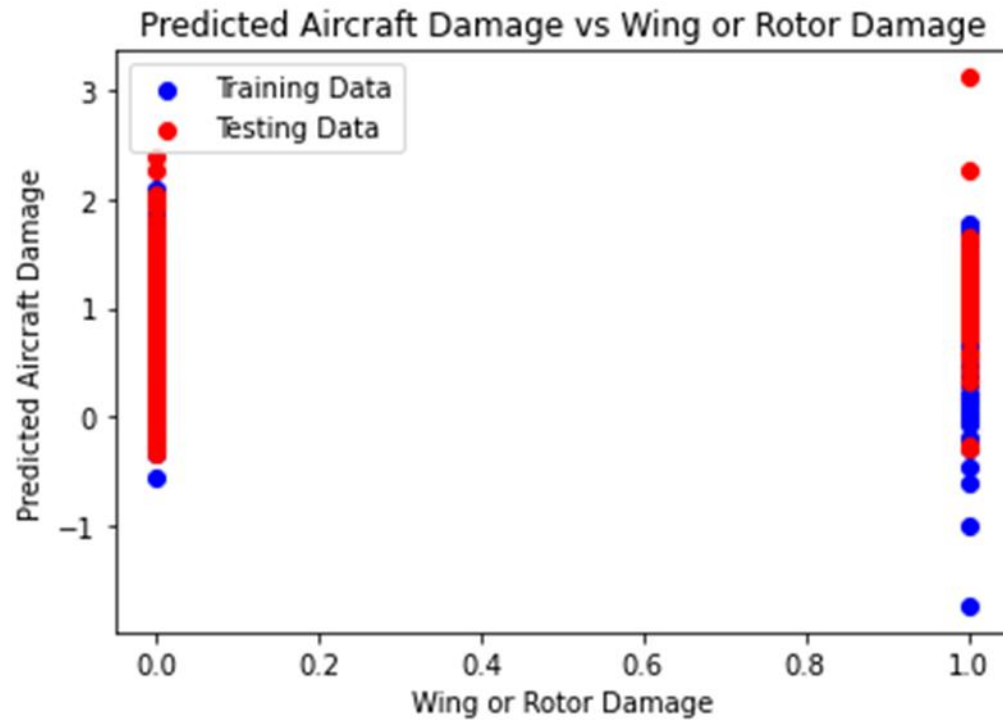
The provided plot depicts the relationship between predicted aircraft damage and wing or rotor damage. The x-axis quantifies wing or rotor damage on a scale of 0 to 1, while the y-axis represents predicted aircraft damage on a scale of -1 to 3. Testing data points exhibit dispersion around the red line, suggesting the model's ability to grasp the association between wing or rotor damage and aircraft damage to some extent. However, the presence of scatter in the data indicates imperfections and inherent uncertainty in the model's predictions. Discrepancy between the blue and red lines implies model error, potentially stemming from factors such as data noise, model constraints, or unaccounted variables. Overall, the plot suggests a positive correlation between wing or rotor damage and predicted aircraft damage, indicating an anticipated increase in aircraft damage with higher wing or rotor damage values. Nevertheless, it is essential to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.

Predicted Aircraft Damage vs Wing or Rotor Strike

The provided plot illustrates the relationship between predicted aircraft damage and wing or rotor strike. The x-axis delineates wing or rotor strike on a scale of 0 to 1, while the y-axis signifies predicted aircraft damage on a scale of -1 to 3. Testing data points exhibit dispersion around the red line, implying the model's capacity to discern the association between wing or rotor strike and aircraft damage to some extent. However, the presence of scatter in the data indicates imperfections and inherent uncertainty in the model's predictions. Disparity between the blue line and the red line suggests model error, possibly stemming from factors such as data noise, model constraints, or unaccounted variables. Overall, the plot suggests a positive correlation between wing or rotor strike and predicted aircraft damage, indicating an anticipated increase in aircraft damage with higher wing or rotor strike values. Nonetheless, it is essential to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.

Predicted Aircraft Damage vs Propeller Damage

The plot provided illustrates the relationship between predicted aircraft damage and propeller damage. Propeller damage is measured on the x-axis, ranging from 0 to 1, while the predicted aircraft damage is depicted on the y-axis, ranging from -1 to 3. The dispersion of testing data points around the red line indicates that the model has captured the association between propeller damage and aircraft damage to some extent. However, the presence of scatter in the data implies imperfections in the model's predictive capabilities, signifying inherent uncertainty. Furthermore, the misalignment between the blue line and the red line suggests model error, attributable to factors such as data noise, model constraints, or unaccounted variables. In conclusion, the plot suggests a positive correlation between propeller damage and predicted aircraft damage, indicating that an increase in propeller damage value corresponds to a projected increase in aircraft damage. Nevertheless, it is crucial to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.
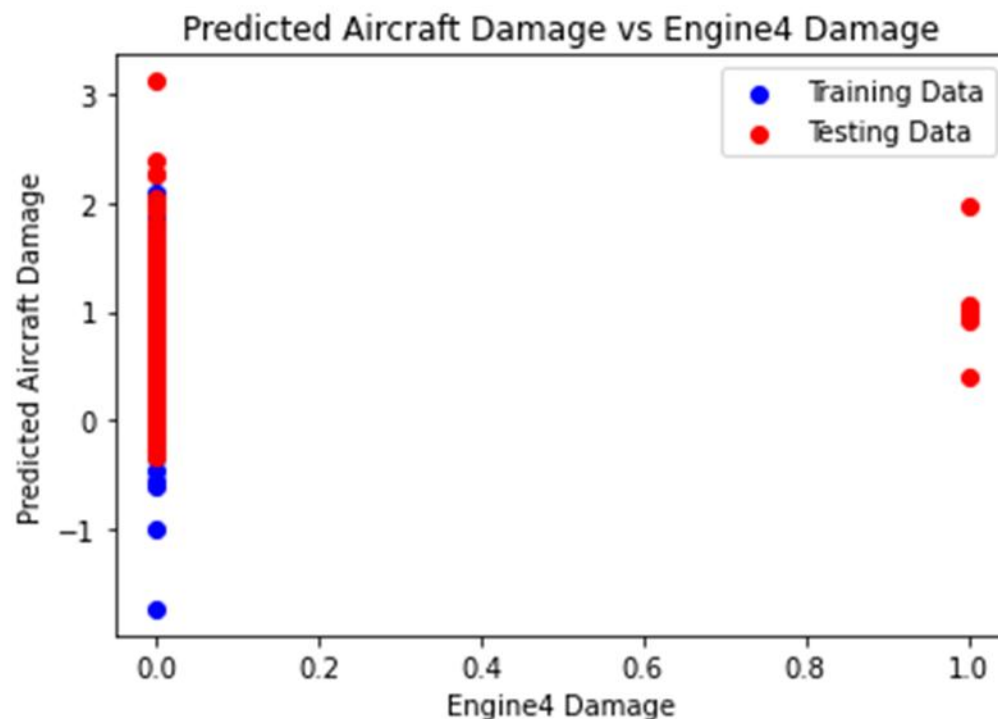
Predicted Aircraft Damage vs Propeller Strike

The plot illustrates the relationship between predicted aircraft damage and propeller strike. Propeller strike is delineated on the x-axis, ranging from 0 to 1, while the predicted aircraft damage is depicted on the y-axis, spanning from -1 to 3. The dispersion of testing data points around the red line indicates that the model has discerned the association between propeller strike and aircraft damage to some degree. However, the presence of scatter in the data implies imperfections in the model's predictive capabilities, suggesting inherent uncertainty. Moreover, the lack of perfect alignment between the blue line and the red line indicates model error, attributable to factors such as data noise, model constraints, or unaccounted variables. In conclusion, the plot suggests a positive correlation between propeller strike and predicted aircraft damage, indicating that an escalation in propeller strike value corresponds to a projected increase in aircraft damage. Nonetheless, it is imperative to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.
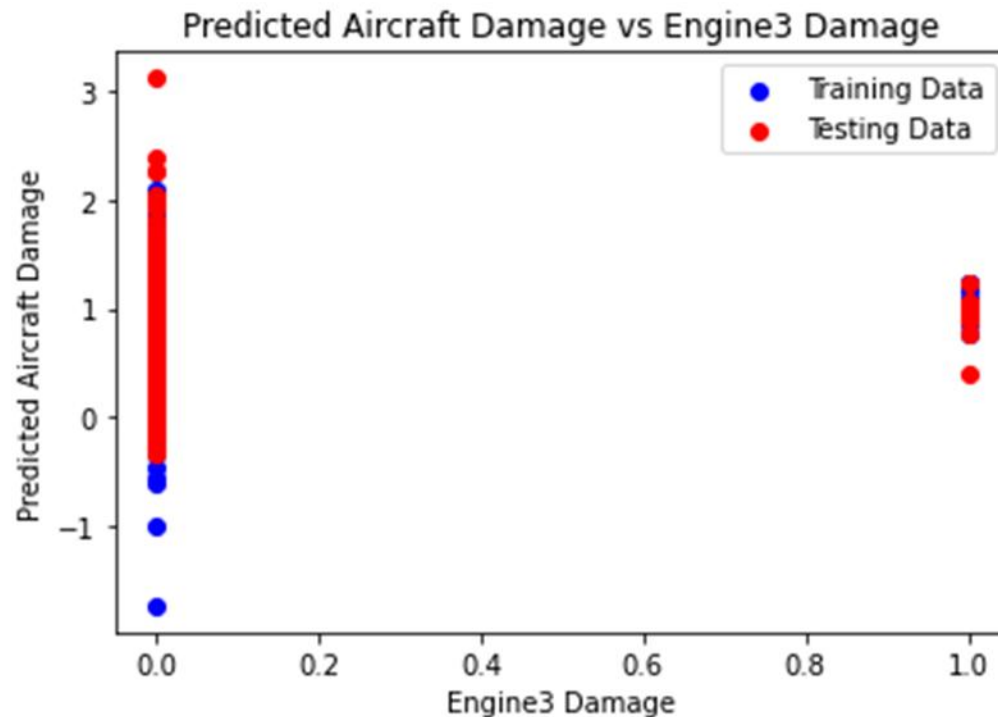
Predicted Aircraft Damage vs Engine Ingested

The provided plot illustrates the relationship between predicted aircraft damage and engine ingested, where the red line denotes the predicted aircraft damage and the blue line represents the training data. Engine ingested is depicted on the x-axis, ranging from 0 to 1, while the predicted aircraft damage is portrayed on the y-axis, spanning from -1 to 3.

The dispersion of training data points around the red line implies that the model has captured the association between engine ingested and aircraft damage to a certain extent. Nevertheless, the presence of scatter in the data suggests imperfections in the model's predictive accuracy, indicating inherent uncertainty. The misalignment between the blue line and the red line signifies model error, stemming from various factors such as data noise, model constraints, or unaccounted variables.

In summary, the plot suggests a positive correlation between engine ingested and predicted aircraft damage, signifying that an increase in engine ingested value corresponds to a projected escalation in aircraft damage. However, it is essential to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.

Furthermore, it is imperative to recognize that the training data used may not be wholly representative of all real-world scenarios, potentially limiting the model's predictive accuracy

across diverse contexts. Hence, caution should be exercised when applying the model's predictions in practical settings.

Predicted Aircraft Damage vs Engine4 Damage

The provided plot illustrates the relationship between predicted aircraft damage and engine 4 damage. Engine 4 damage is depicted on the x-axis, ranging from 0 to 1, while the predicted aircraft damage is portrayed on the y-axis, spanning from -1 to 3.

The dispersion of testing data points around the red line suggests that the model has captured, to some extent, the association between engine 4 damage and aircraft damage. However, the presence of scatter in the data indicates imperfections in the model's predictive accuracy, highlighting inherent uncertainty in its predictions. The misalignment between the blue line and the red line signifies model error, which can arise from factors such as data noise, model constraints, or unaccounted variables.

In summary, the plot indicates a positive correlation between engine 4 damage and predicted aircraft damage, implying that an increase in engine 4 damage value corresponds to a projected escalation in aircraft damage. Nevertheless, it is essential to acknowledge the model's limitations and associated uncertainties when interpreting its predictions.

Furthermore, it is imperative to recognize that the training data may not fully encompass all real-world scenarios, potentially limiting the model's predictive accuracy across diverse contexts. Consequently, caution should be exercised when applying the model's predictions in practical scenarios.
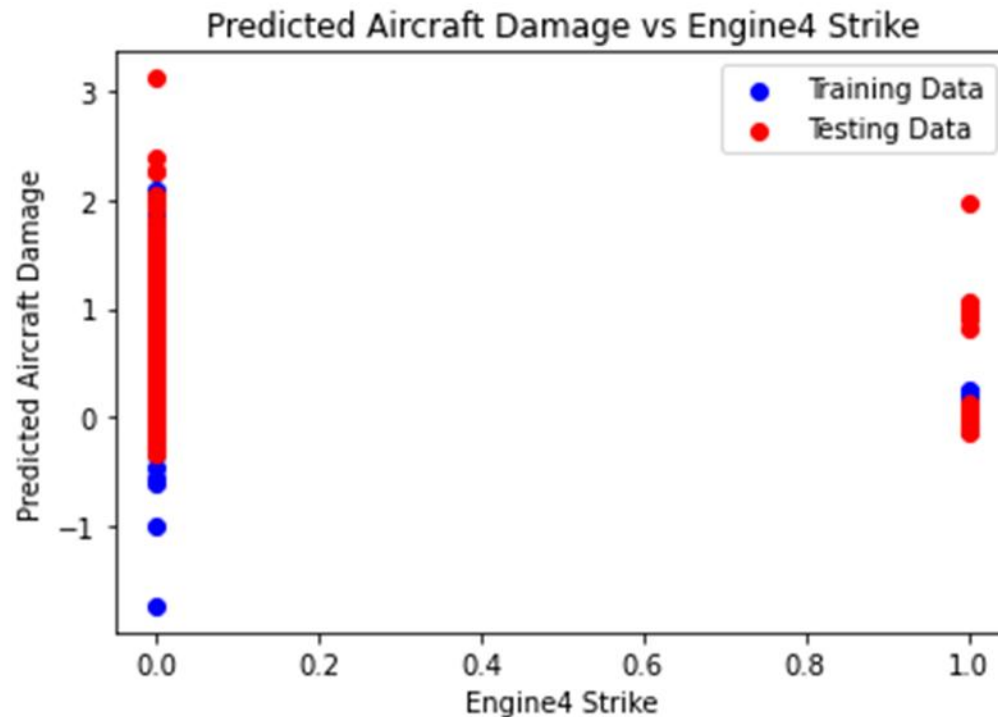
The plot titled "Predicted Aircraft Damage vs Engine4 Strike" depicts the relationship between two variables: predicted aircraft damage and engine 4 strike. The x-axis is labeled "Engine4 Strike," ranging from 0 to 1, while the y-axis is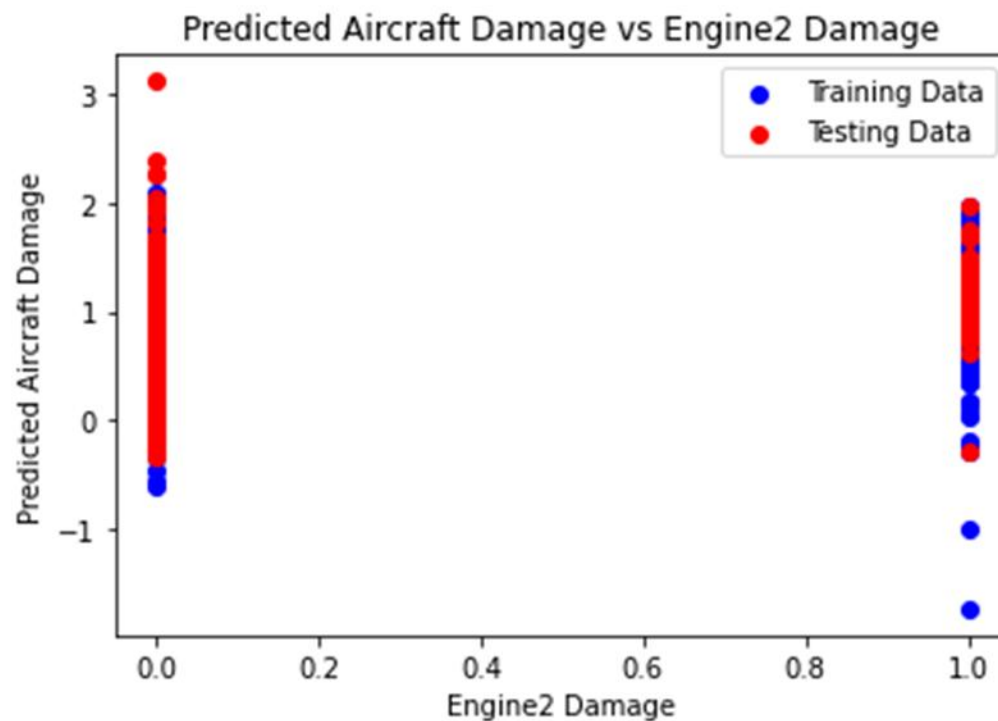 labeled "Predicted Aircraft Damage," spanning from -1 to 3. Two lines are presented on the plot: the red line signifies predicted aircraft damage, while the blue line represents the training data—a dataset employed to train a machine learning model. Subsequently, this model is utilized to forecast the values of the target variable, namely predicted aircraft damage, for new data points.

The plot illustrates a positive correlation between engine 4 strike and predicted aircraft damage, implying that an escalation in engine 4 strike value corresponds to an increase in predicted aircraft damage. Nonetheless, it is crucial to discern that correlation does not necessarily denote causation. While a relationship is observed between engine 4 strike and predicted aircraft damage, there may exist a third variable influencing both factors, thereby necessitating caution in inferring causal relationships.

Overall, the plot serves to visually elucidate the correlation between engine 4 strike and predicted aircraft damage, facilitating insights into potential associations within the dataset. Nevertheless, rigorous analysis and consideration of confounding variables are imperative for comprehensive interpretation and informed decision-making.

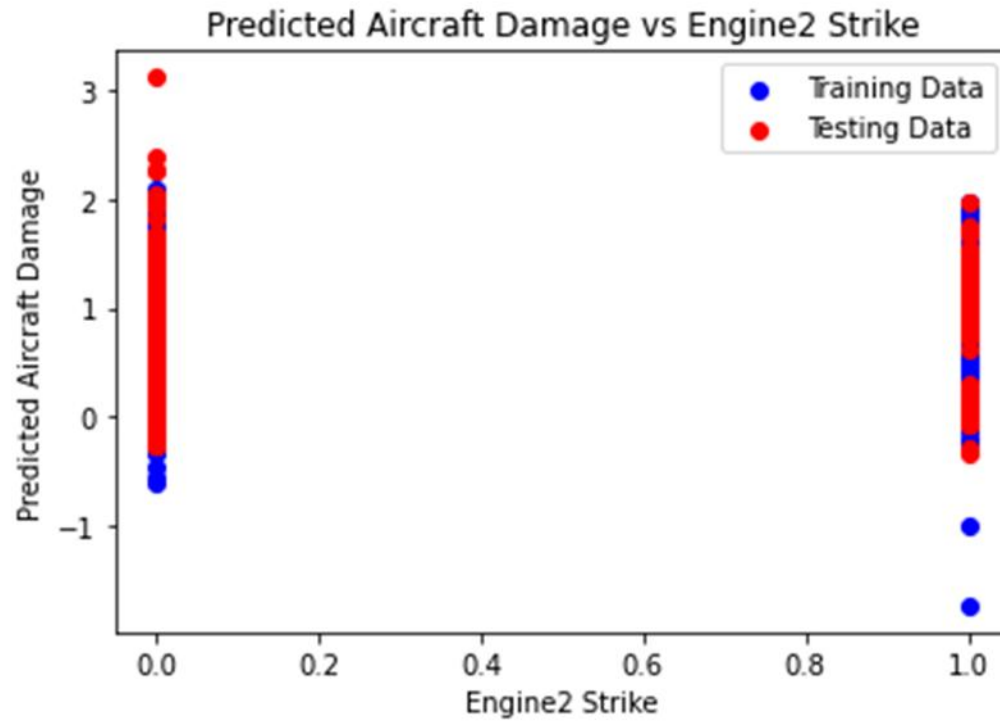The plot titled "Predicted Aircraft Damage vs Engine3 Damage" illustrates the association between predicted aircraft damage and engine 3 damage. The x-axis is labeled "Engine3 Damage," ranging from 0 to 1, while the y-axis is labeled "Predicted Aircraft Damage," spanning from -1 to 3.

Two lines are depicted on the plot a dataset utilized to evaluate the performance of a machine learning model. The testing data comprises a set of data points utilized for assessing the model's predictive accuracy. The model undergoes training on a distinct set of data points and subsequently makes predictions for the testing data.

The plot reveals a positive correlation between engine 3 damage and predicted aircraft damage, implying that an increase in engine 3 damage corresponds to an elevation in predicted aircraft damage. However, it is essential to acknowledge that correlation does not inherently imply causation. Alternative factors may influence both engine 3 damage and predicted aircraft damage, thereby necessitating caution in attributing causality solely based on correlation.

In summary, the plot provides insight into the relationship between engine 3 damage and predicted aircraft damage, aiding in the understanding of potential associations within the dataset. Nonetheless, careful consideration of confounding variables is warranted to ensure comprehensive interpretation and informed decision-making.
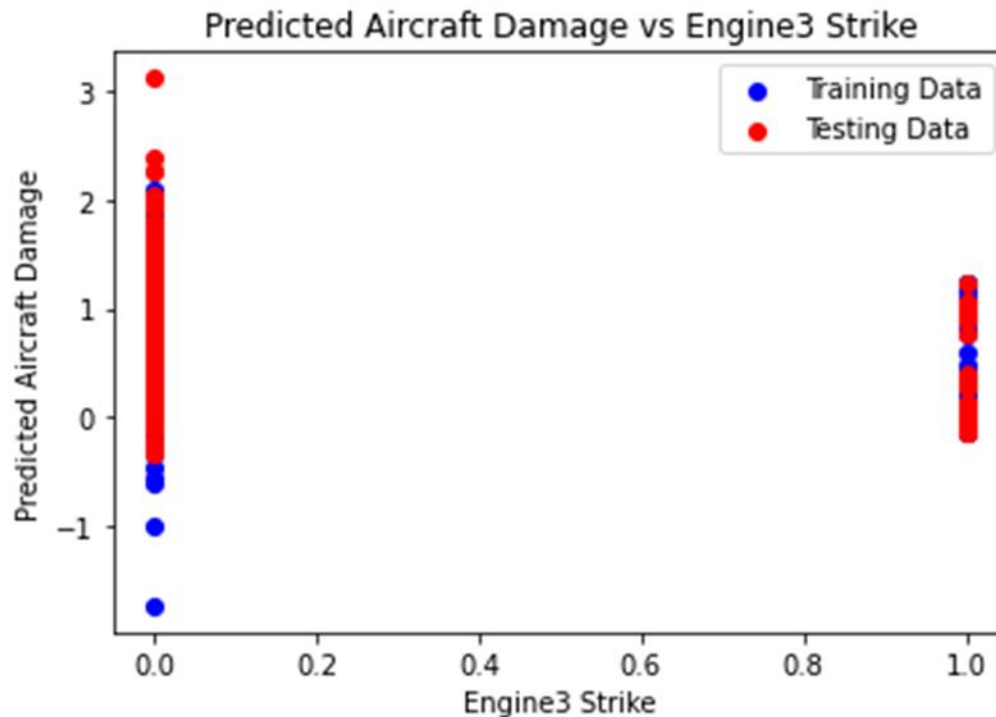
The plot entitled "Predicted Aircraft Damage vs Engine3 Strike" delineates the association between predicted aircraft damage and engine 3 strike. The x-axis, denoted as "Engine3 Strike," ranges from 0 to 1, while the y-axis, labeled "Predicted Aircraft Damage," spans from -1 to 3.

Displayed on the plot are two lines: the red line signifies predicted aircraft damage, whereas the blue line represents the training data. The training data encompasses a set of data points utilized for the training of a machine learning model, which subsequently generates predictions for the target variable—in this case, predicted aircraft damage—based on new data points.

The plot illustrates a positive correlation between engine 3 strike and predicted aircraft damage, indicating that an increase in engine 3 strike corresponds to a rise in predicted aircraft damage.

The clustering of training data points around the red line suggests that the model performs satisfactorily on the training data.

However, it is imperative to acknowledge that correlation does not inherently imply causation. The observed relationship between engine 3 strike and predicted aircraft damage may be influenced by confounding variables, necessitating cautious interpretation regarding causal inference.

In summary, the plot provides insights into the association between engine 3 strike and predicted aircraft damage, facilitating understanding of potential relationships within the dataset. Nonetheless, prudent consideration of confounding factors is essential to ensure comprehensive interpretation and informed decision-making.

The plot entitled "Predicted Aircraft Damage vs Engine2 Damage" illustrates the relationship between two variables: predicted aircraft damage and engine 2 damage.
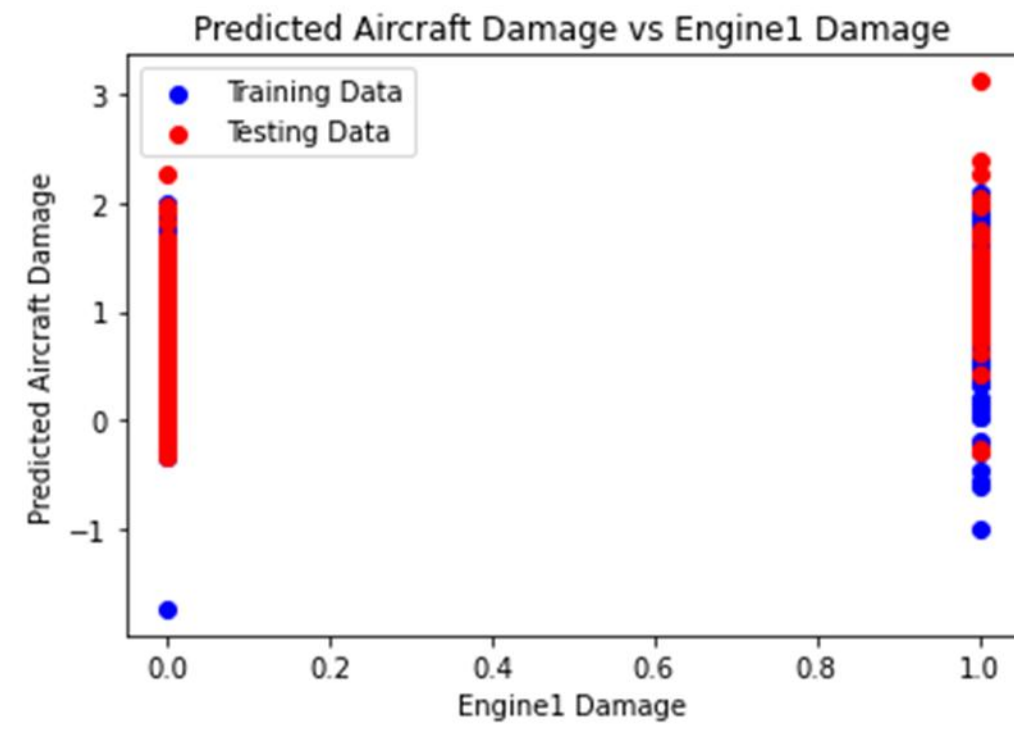
On the x-axis, labeled "Engine2 Damage," values range from 0 to 1, while the y-axis, labeled "Predicted Aircraft Damage," spans from 0 to 3.
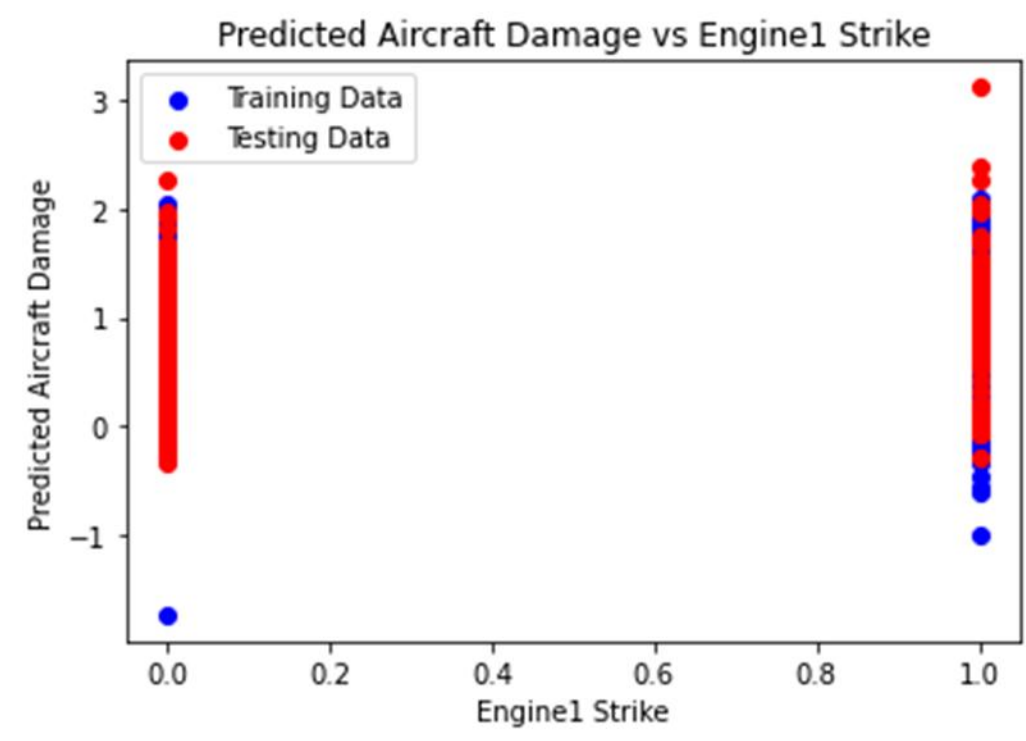
Two lines are depicted on the plot. The testing data comprises a set of data points utilized to assess the performance of a machine learning model. This model is trained on a distinct set of data points, subsequently leveraging that training to predict values for the testing data points.

The plot indicates a positive correlation between engine 2 damage and predicted aircraft damage, signifying that an increase in engine 2 damage corresponds to a rise in predicted aircraft damage. The clustering of testing data points around the red line suggests satisfactory model performance on the testing data.

Nevertheless, it is essential to acknowledge that correlation does not inherently imply causation. While a relationship between engine 2 damage and predicted aircraft damage is observed, the existence of a third variable influencing both factors cannot be discounted.

The plot provides insights into the correlation between engine 2 damage and predicted aircraft damage, facilitating understanding of their interrelationship within the dataset. However, cautious interpretation is warranted to discern causation and account for potential confounding variables.

Predicted Aircraft Damage vs Engine2 Strike

The plot titled "Predicted Aircraft Damage vs Engine2 Strike" illustrates the relationship between two variables: predicted aircraft damage and engine 2 strike.

The x-axis of the plot is labeled "Engine2 Strike," ranging from 0 to 1, while the y-axis is labeled "Predicted Aircraft Damage," ranging from 0 to 3.

Displayed on the plot are two lines: a red line representing predicted aircraft damage and a blue line representing the training data. The training data constitutes a set of data points employed to train a machine learning model, which is subsequently utilized to predict the values of the target variable (predicted aircraft damage) for new data points.

The plot reveals a positive correlation between engine 2 strike and predicted aircraft damage, indicating that as the value of engine 2 strike increases, the value of predicted aircraft damage also tends to rise. The clustering of training data points around the red line suggests proficient model performance on the training data.

The plot entitled "Predicted Aircraft Damage vs Engine 1 Damage" delineates the relationship between two variables: predicted aircraft damage and engine 1 damage.
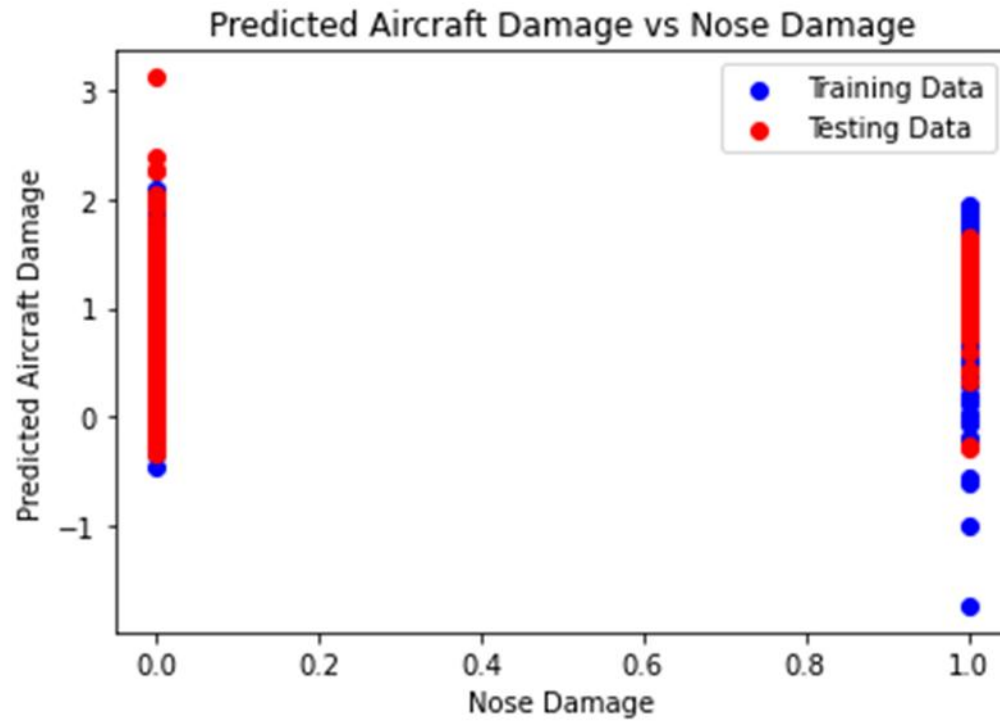
On the x-axis, labeled "Engine 1 Damage," the plot spans from 0 to 1, while the y-axis, labeled "Predicted Aircraft Damage," ranges from -1 to 3.

The plot exhibits two lines: a red line denoting predicted aircraft damage and a blue line representing the training data. The training data comprises a collection of data points utilized for

training a machine learning model, subsequently employed to forecast the values of the target variable (predicted aircraft damage) for novel data points.

The plot indicates a positive correlation between engine 1 damage and predicted aircraft damage, signifying that as the magnitude of engine 1 damage escalates, the forecasted aircraft damage also tends to increase. Notably, the clustering of training data points around the red line implies proficient model performance on the training data.

Nevertheless, it is imperative to acknowledge that correlation does not inherently imply causation. While a relationship between engine 1 damage and predicted aircraft damage is observed, the potential existence of a third variable concurrently influencing both factors cannot be overlooked.

In summary, the plot furnishes insights into the correlation between engine 1 damage and predicted aircraft damage, facilitating comprehension of their interconnectedness within the dataset. Nonetheless, judicious interpretation is paramount to discern causality and consider plausible confounding variables.
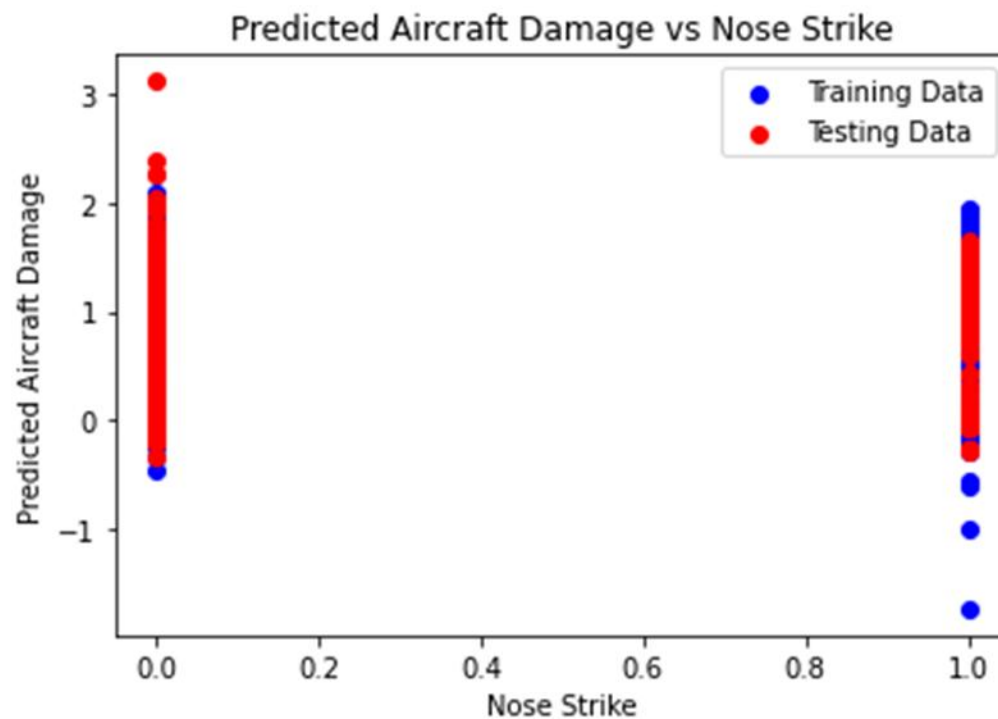

The provided plot, titled "Predicted Aircraft Damage vs Engine1 Strike," elucidates the association between two variables: predicted aircraft damage and engine 1 strike. On the x-axis,

denoted "Engine1 Strike," the plot ranges from 0 to 1, while the y-axis, labeled "Predicted Aircraft Damage," spans from -1 to 3.

Displayed on the plot are two lines. The testing data comprises a collection of data points employed to assess the performance of a machine learning model. The model undergoes training on a distinct set of data points and subsequently applies its acquired knowledge to predict values for the testing data points.

The plot discerns a positive correlation between engine 1 strike and predicted aircraft damage, implying that heightened engine 1 strike values correspond with increased forecasted aircraft damage. Moreover, the clustering of testing data points around the red line suggests commendable model performance on the testing data.

Nevertheless, it is essential to acknowledge that correlation does not inherently signify causation. While a relationship between engine 1 strike and predicted aircraft damage is apparent, the potential influence of a third variable, affecting both factors simultaneously, warrants consideration.

In summation, the plot provides valuable insights into the correlation between engine 1 strike and predicted aircraft damage, facilitating an understanding of their interrelationship within the dataset. However, prudent interpretation is necessary to discern causality and account for plausible confounding variables.
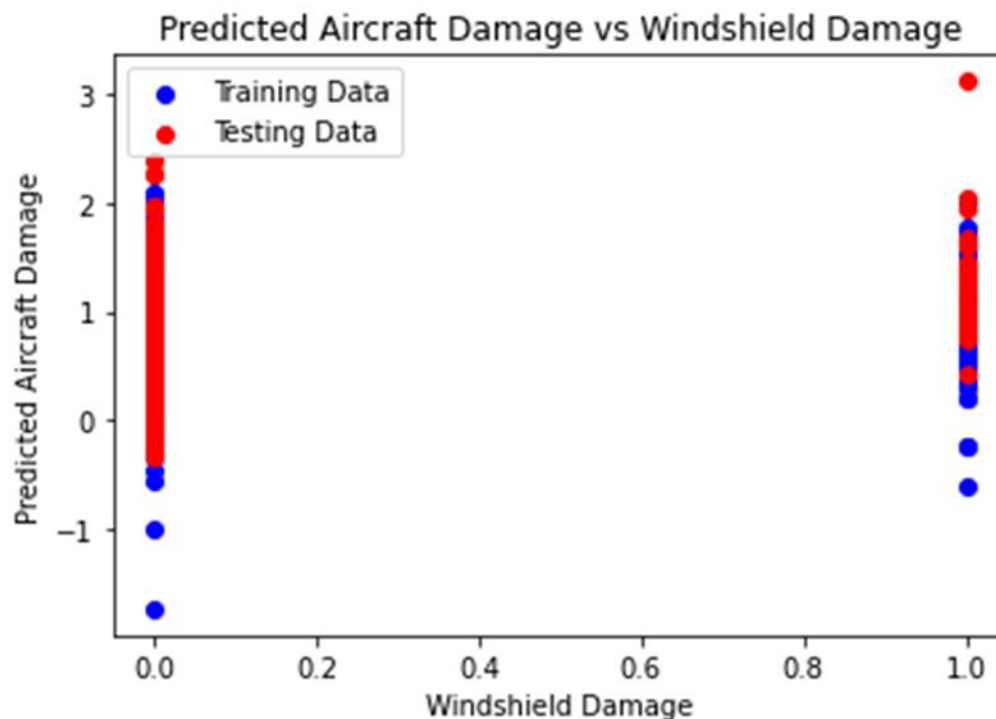
Predicted Aircraft Damage vs Nose Damage

The provided plot, titled "Predicted Aircraft Damage vs Nose Damage," illustrates the relationship between two variables: predicted aircraft damage and nose damage. On the x-axis, labeled "Nose Damage," the plot ranges from 0 to 1, while the y-axis, denoted "Predicted Aircraft Damage," spans from -1 to 3.

Displayed on the plot are two lines. The testing data comprises a collection of data points used to evaluate the performance of a machine learning model. This model is trained on a distinct set of data points and subsequently leverages its learned insights to predict values for the testing data points.

The plot reveals a positive correlation between nose damage and predicted aircraft damage, indicating that heightened nose damage values coincide with increased forecasted aircraft damage. Additionally, the clustering of testing data points around the red line suggests satisfactory model performance on the testing data.

However, it is essential to acknowledge that correlation does not inherently imply causation. While a relationship between nose damage and predicted aircraft damage is evident, the potential influence of a third variable, affecting both factors simultaneously, warrants consideration.

In summary, the plot provides valuable insights into the correlation between nose damage and predicted aircraft damage, aiding in understanding their interrelationship within the dataset. Nonetheless, prudent interpretation is necessary to discern causality and account for plausible confounding variables.

The provided plot, titled "Predicted Aircraft Damage vs Nose Strike," illustrates the relationship between two variables: predicted aircraft damage and nose strike. On the x-axis, labeled "Nose Strike," the plot ranges from 0 to 1, while the y-axis, denoted "Predicted Aircraft Damage," spans from -1 to 3.

Displayed on the plot are two lines. The testing data comprises a collection of data points used to evaluate the performance of a machine learning model. This model is trained on a distinct set of data points and subsequently leverages its learned insights to predict values for the testing data points.

The plot reveals a weak positive correlation between nose strike and predicted aircraft damage, indicating a slight upward trend in predicted aircraft damage as the value of nose strike increases. However, the scattered nature of the data points suggests that the relationship is not particularly strong.

It is crucial to note that correlation does not inherently imply causation. While a relationship between nose strike and predicted aircraft damage is observed, the potential influence of a third variable affecting both factors simultaneously warrants consideration.

In summary, the plot provides insights into the correlation between nose strike and predicted aircraft damage, indicating a weak positive association. However, careful interpretation is necessary to discern causality and account for potential confounding variables.

The provided plot, titled "Predicted Aircraft Damage vs Windshield Damage," depicts the relationship between two variables: predicted aircraft damage and windshield damage. On the x-axis, labeled "Windshield Damage," the plot ranges from 0 to 1, while the y-axis, denoted "Predicted Aircraft Damage," spans from -1 to 3. The plot exhibits two lines: a red line representing predicted aircraft damage and a blue line representing the training data, which

comprises a set of data points used to train a machine learning model. While a weak positive correlation between windshield damage and predicted aircraft damage is observed, suggesting a tendency for increased predicted aircraft damage with higher windshield damage values, the scattered nature of the data points indicates a lack of robust correlation. Additionally, discrepancies between high windshield damage values and low predicted aircraft damage values imply the presence of other influential factors. Notably, correlation does not imply causation, and the possibility of a third variable influencing both windshield damage and predicted aircraft damage should be considered.
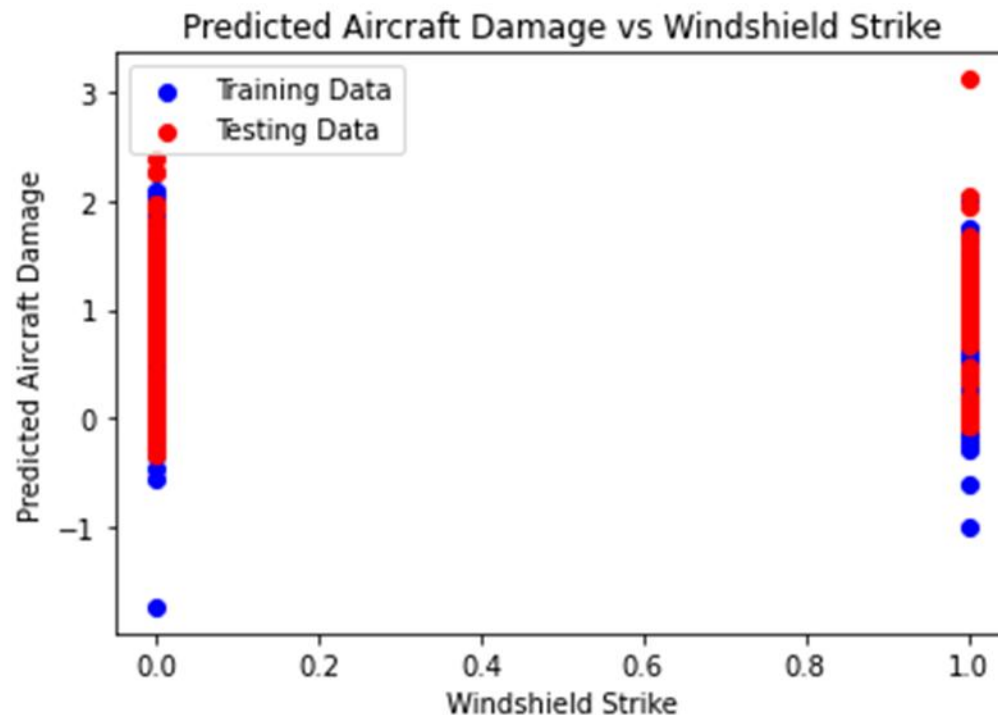
The provided image, entitled "Predicted Aircraft Damage vs Windshield Strike," illustrates the association between two variables: predicted aircraft damage and windshield strike. The x-axis of the plot is labeled "Windshield Strike," spanning from 0 to 1, while the y-axis is denoted "Predicted Aircraft Damage," ranging from -1 to 3. Displayed on the plot are two lines: a red line representing the **predicted aircraft damage** and a blue line representing the **training data**. This training data constitutes a collection of data points utilized to train a machine learning model, which is subsequently employed to forecast the values of the target variable, predicted aircraft damage, for novel data points. The plot reveals a **weak positive correlation** between windshield strike and predicted aircraft damage, signifying that an increase in windshield strike typically coincides with a rise in predicted aircraft damage. However, the scattered distribution of data points suggests a lack of strong correlation. Notably, instances where high windshield strike values correspond with low predicted aircraft damage values imply the potential influence

of other factors on predicted aircraft damage besides windshield strike. Importantly, it should be recognized that correlation does not necessarily imply causation, and the existence of a third variable capable of affecting both windshield strike and predicted aircraft damage cannot be disregarded.
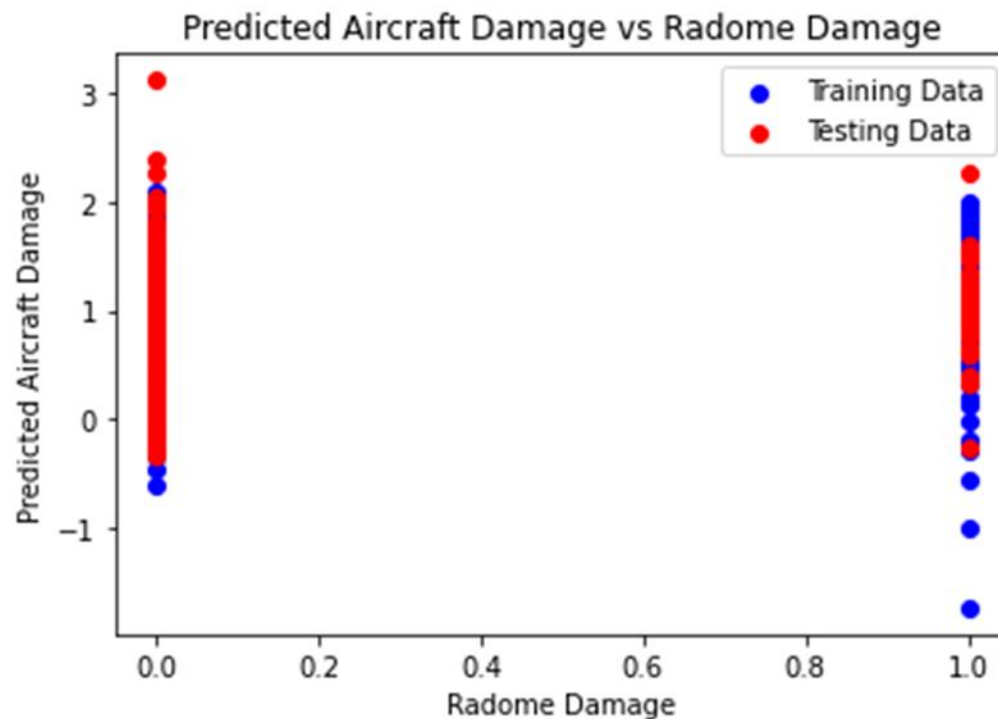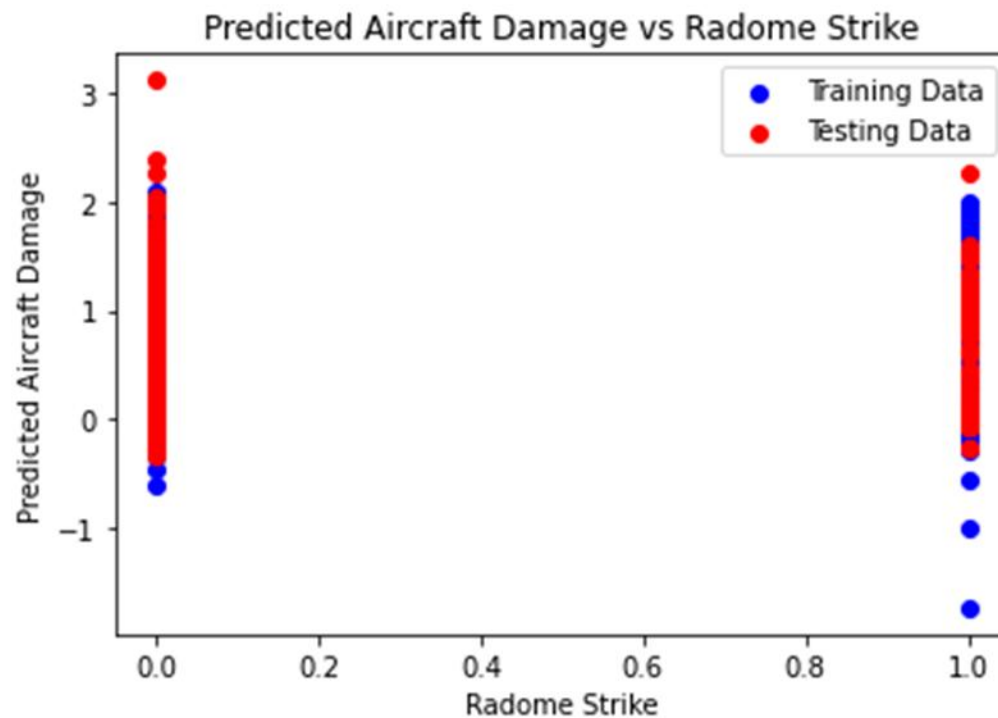

The provided image, titled "Predicted Aircraft Damage vs Radome Damage," illustrates the relationship between two variables: predicted aircraft damage and radome damage. On the plot, the x-axis is labeled "Radome Damage," ranging from 0 to 1, while the y-axis is denoted "Predicted Aircraft Damage," ranging from -1 to 3.

This testing data comprises a set of data points utilized to assess the performance of a machine learning model. The model is trained using a distinct set of data points, following which it is utilized to forecast the values of the target variable, predicted aircraft damage, for the testing data points.

The plot reveals a relation between radome damage and predicted aircraft damage, indicating that an increase in radome damage typically corresponds with a rise in predicted aircraft damage. However, the scattered distribution of data points suggests a lack of a strong correlation. Instances where high radome damage values correspond with low predicted aircraft damage

values imply the potential influence of other factors on predicted aircraft damage besides radome damage.

It is crucial to acknowledge that correlation does not necessarily imply causation. Therefore, the existence of a third variable capable of influencing both radome damage and predicted aircraft damage cannot be discounted.
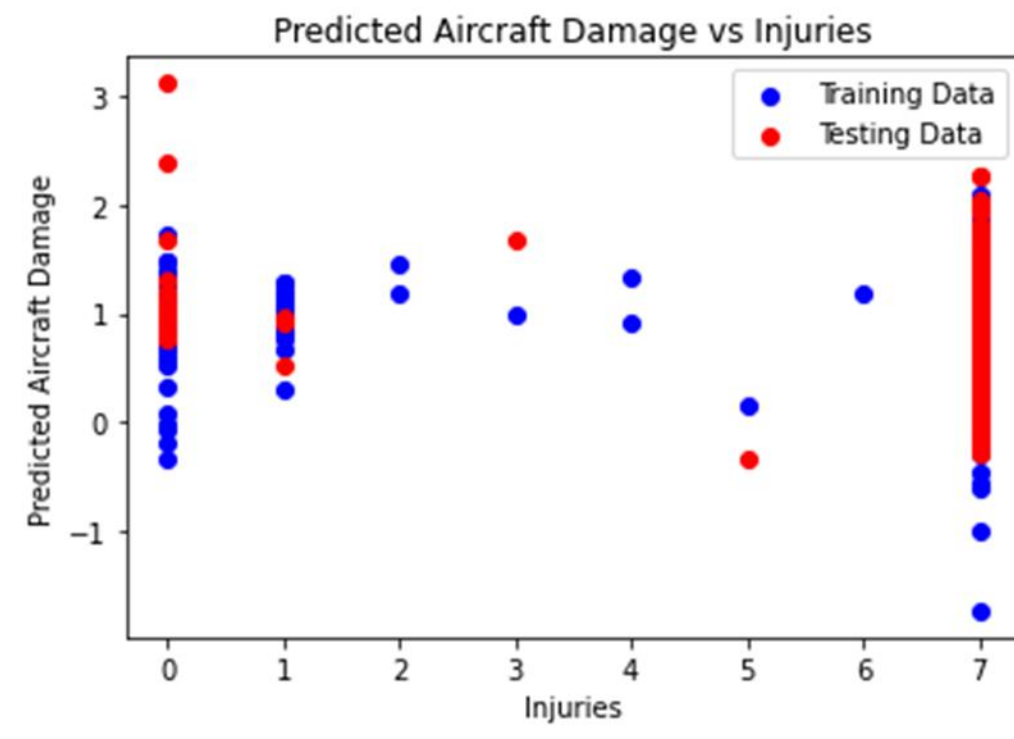

The provided plot, titled "Predicted Aircraft Damage vs Radome Strike," illustrates the association between two variables: predicted aircraft damage and radome strike. On the plot, the x-axis is labeled "Radome Strike," ranging from 0 to 1, where 0 denotes no radome strike and 1 signifies a full radome strike. The y-axis is denoted "Predicted Aircraft Damage," ranging from -1 to 3.

This testing data constitutes a set of data points utilized for assessing the performance of a machine learning model. The model undergoes training using a distinct set of data points, following which it is employed to forecast the values of the target variable, predicted aircraft damage, for the testing data points.

The plot illustrates a relation between radome strike and predicted aircraft damage. This suggests that as the radome strike value increases, there is a tendency for the predicted aircraft damage value to rise as well. However, the scattered distribution of data points indicates a lack of a robust correlation. Instances where high radome strike values correspond with low predicted aircraft damage values, and vice versa, imply the potential influence of additional factors on predicted aircraft damage, aside from radome strike.

It is essential to acknowledge that correlation does not necessarily imply causation. Hence, the possibility of a third variable affecting both radome strike and predicted aircraft damage cannot be discounted.

The provided plot illustrates a scatter plot demonstrating the relationship between predicted aircraft damage and injuries. Within the plot, the red dots symbolize the predicted aircraft damage, while the blue dots represent injuries.

Furthermore, two distinct sets of data points are depicted: training data and testing data. The training data is utilized to train the model, while the testing data serves to assess the model's performance.

Upon examination of the plot, it is discernible that a positive correlation exists between predicted aircraft damage and injuries. This signifies that an escalation in predicted aircraft damage tends to coincide with an increase in injuries. However, due to the scattering of data points, the correlation is not absolute.

Moreover, it is pertinent to acknowledge that the plot exclusively showcases predicted aircraft damage, thereby omitting the representation of actual damage. As such, the actual damage may deviate from the predicted values.

Additional observations concerning the plot include the following details:

- The x-axis is labeled "Injuries."

- The y-axis is labeled "Predicted Aircraft Damage."

- The scale on the x-axis ranges from 0 to 7.

- The scale on the y-axis ranges from -1 to 3.

- There are more training data points compared to testing data points.

- The training data points are primarily clustered together, while the testing data points exhibit a more dispersed distribution.
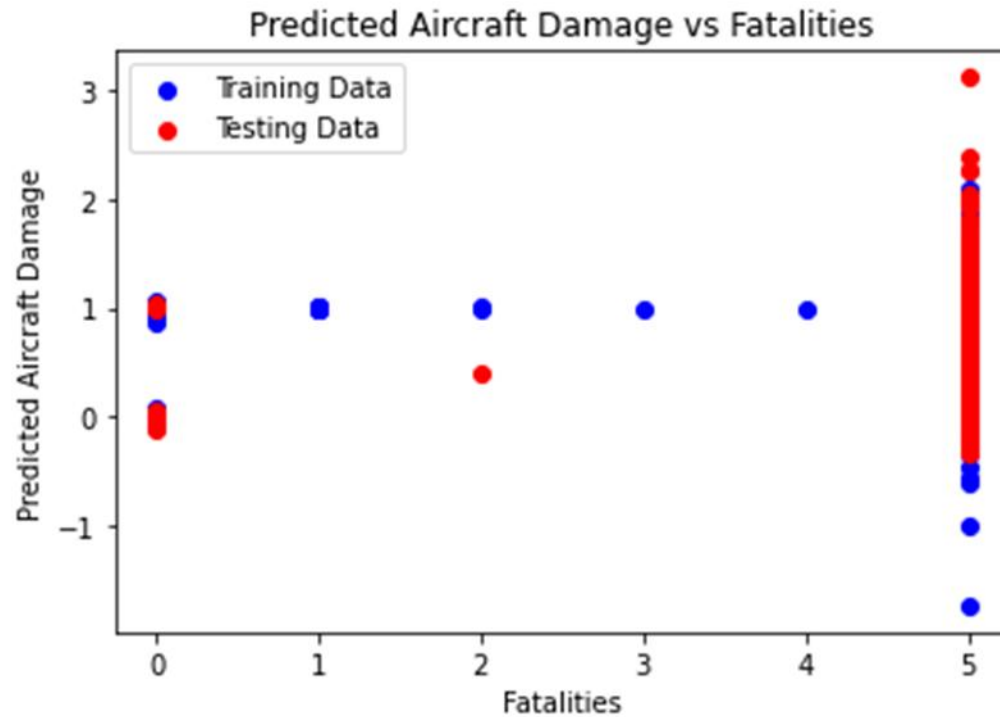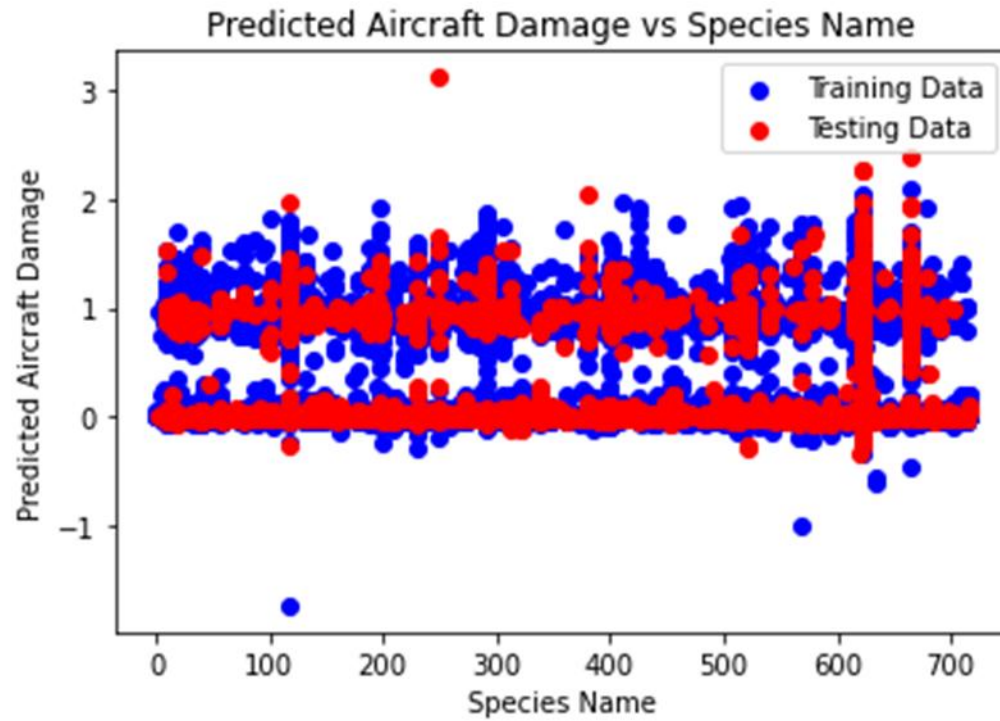
Predicted Aircraft Damage vs Fatalities

The provided scatter plot illustrates the relationship between two variables: predicted aircraft damage and the number of fatalities, with each data point representing a single observation categorized by training (blue) or testing (red) data. The horizontal axis depicts predicted aircraft damage on a scale ranging from -1 to 5, while the vertical axis represents the number of fatalities, ranging from 0 to 3. The plot demonstrates a positive correlation between predicted aircraft damage and fatalities, indicating that as predicted damage increases, so does the number of fatalities, albeit with scattered data points suggesting a lack of perfect linearity. It's imperative to recognize that this correlation does not imply causation, as other unaccounted factors may influence both predicted damage and fatalities.
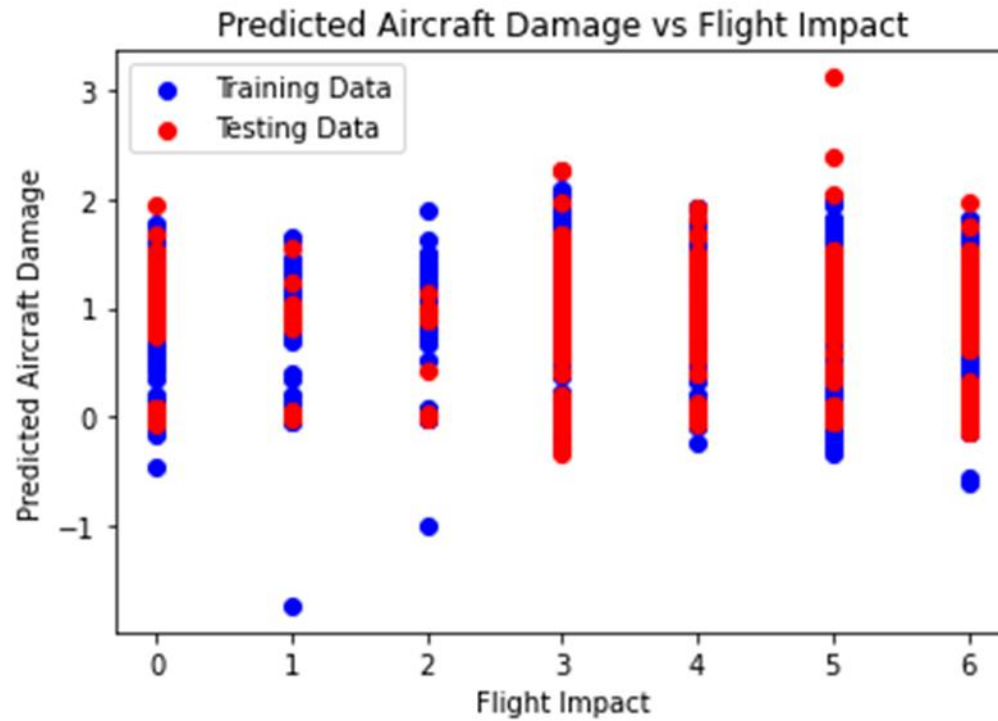
The provided scatter plot, titled "Predicted Aircraft Damage vs Flight Impact," serves to visualize the relationship between two variables: predicted aircraft damage and flight impact. Each data point represents an observation, with blue points denoting data from the training set and red points from the testing set. The horizontal axis (x-axis) represents "Flight Impact," ranging from -1 to 6, while the vertical axis (y-axis) displays "Predicted Aircraft Damage," spanning from 0 to 3. Analysis of the plot suggests a weak positive correlation between predicted aircraft damage and flight impact, indicating that as flight impact increases, predicted aircraft damage tends to rise, albeit without perfect linearity. It is crucial to emphasize that correlation does not imply causation; the observed correlation between these variables does not necessarily infer a causal relationship, as other factors may contribute to the observed patterns.

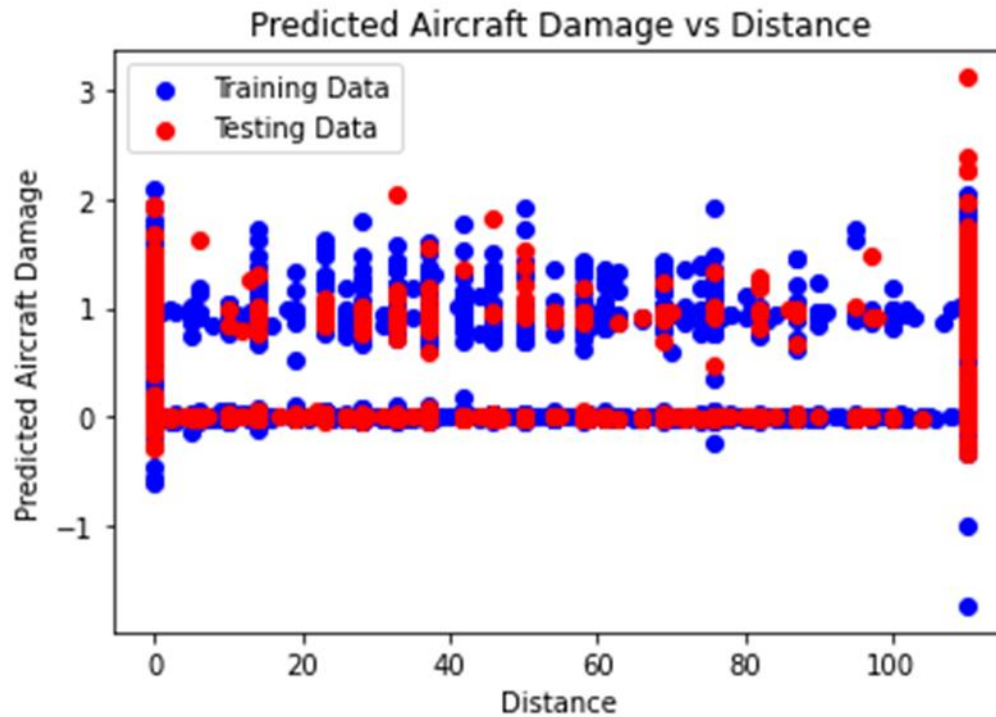Predicted Aircraft Damage vs Species Quantity
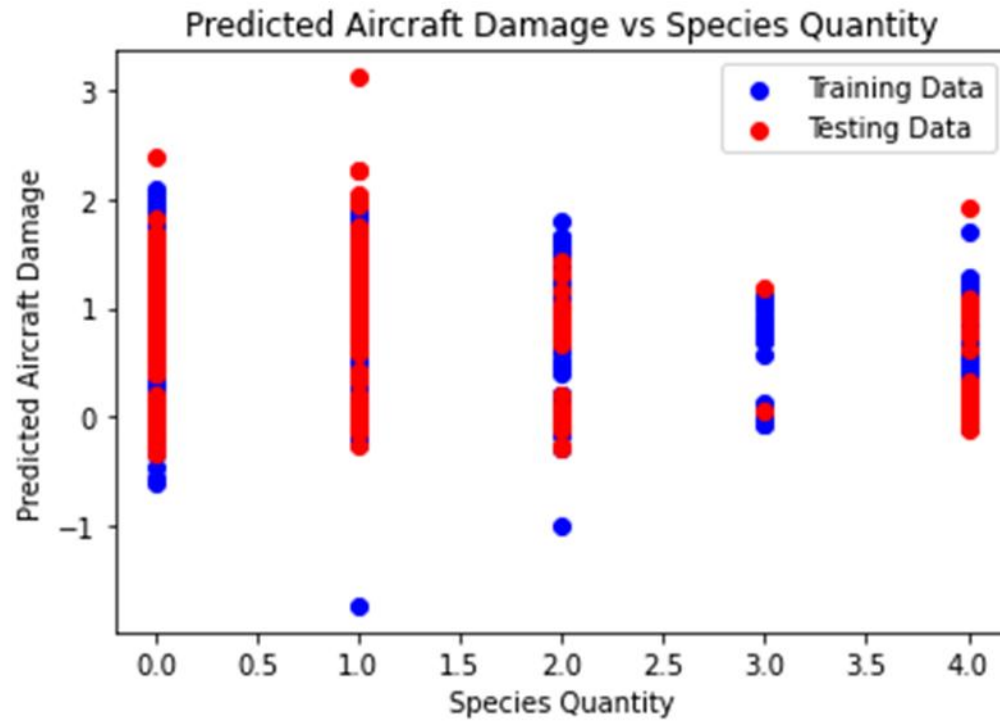
The provided line graph, entitled "Predicted Aircraft Damage vs Species Quantity," delineates the relationship between predicted aircraft damage and species quantity. The x-axis represents "Species Quantity," while the y-axis signifies "Predicted Aircraft Damage." Two lines are discernible: one denoted as "Training Data" (blue) and the other as "Testing Data" (red), with the former utilized for model generation and the latter for assessing model generalization. Despite the color correction, the overarching aim of the plot remains unchanged: to elucidate the association between predicted aircraft damage and species quantity. While a positive correlation persists between these variables, signifying that an increase in species quantity correlates with heightened predicted aircraft damage, the relationship exhibits some scatter, indicative of potential confounding variables. It's crucial to underscore that the graph illustrates correlation, not causation, emphasizing the necessity to consider additional factors that may influence both predicted aircraft damage and species quantity.
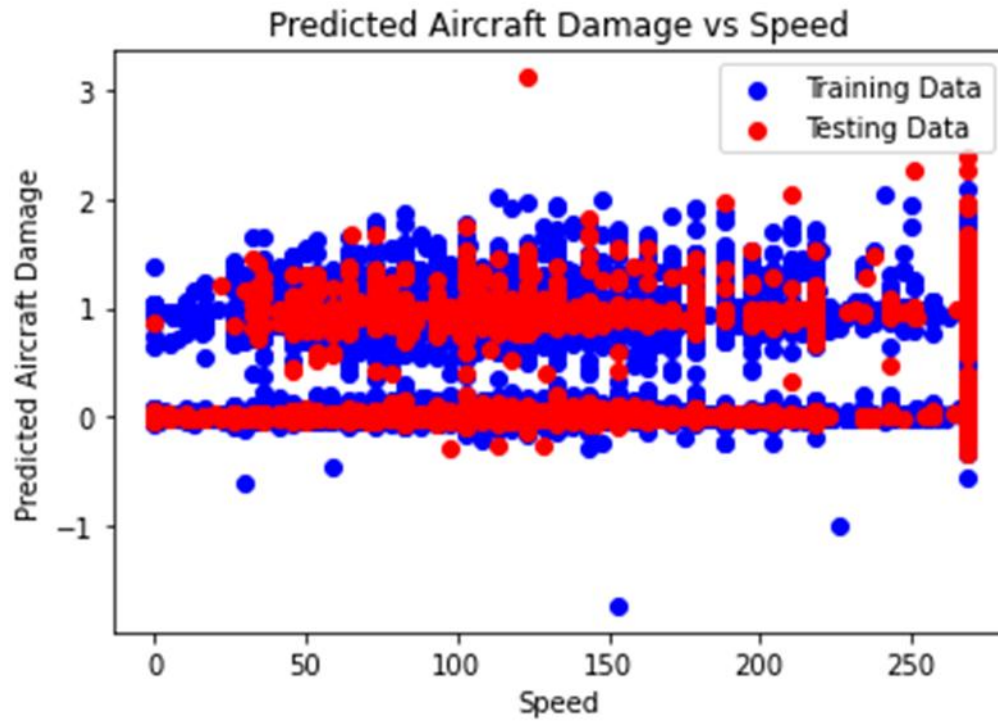
Predicted Aircraft Damage vs Species Name

The provided plot illustrates the association between predicted aircraft damage and species name, with the red line representing predicted damage and the blue dots depicting the training data. While the x-axis is labeled "Species Name," actual species names are not displayed. The y-axis, labeled "Predicted Aircraft Damage," ranges from -1 to 3. Notably, there appears to be no discernible pattern or correlation between predicted aircraft damage and species name based on the training data. The predicted aircraft damage values exhibit scattering across the y-axis range, lacking a consistent trend across different species. Importantly, it is crucial to recognize that the plot exclusively showcases the training data, underscoring the need for caution regarding the model's generalizability to unseen data.
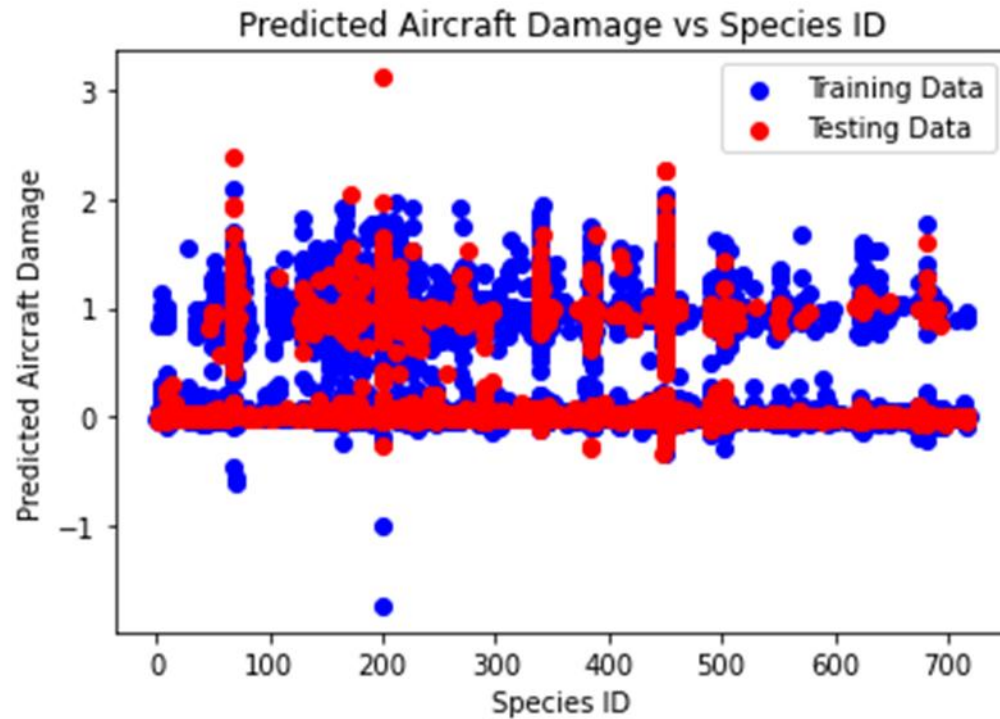
Predicted Aircraft Damage vs Species ID

The provided plot depicts the association between predicted aircraft damage and species ID, with the red line representing predicted damage and the blue dots denoting the training data. The x-axis is labeled "Species ID," ranging from 0 to 700, while the y-axis is labeled "Predicted Aircraft Damage," ranging from -1 to 3. Notably, there appears to be no discernible pattern or correlation between predicted aircraft damage and species ID based on the training data. The predicted aircraft damage values exhibit scattering across the y-axis range, lacking a consistent trend across different species IDs. It is essential to recognize that the plot solely presents the training data, warranting caution regarding the model's generalizability to unseen data.

Predicted Aircraft Damage vs Distance

The provided scatter plot, entitled "Predicted Aircraft Damage vs Distance," illustrates the relationship between predicted aircraft damage and distance traveled. The x-axis denotes "Distance," while the y-axis represents "Predicted Aircraft Damage." Two distinct sets of data points are depicted, distinguished by color: blue for "Training Data" and red for "Testing Data." The plot aims to visually depict the association between predicted aircraft damage and the distance traveled, with the training data employed for model training and the testing data utilized for model assessment.

Upon inspection of the data distribution, a discernible linear relationship between the two variables is not evident. The scatter plot reveals dispersed data points across the range of distances, lacking a clear upward or downward trend along the x-axis. This suggests that the predicted aircraft damage may not exhibit a pronounced linear correlation with the distance traveled.

Crucially, it must be emphasized that the scatter plot depicts correlation, not causation. Even if a distinct linear trend were discerned, it would not inherently imply that distance directly influences changes in predicted aircraft damage. The existence of other unaccounted variables not represented in this plot could significantly impact predicted damage outcomes.

Predicted Aircraft Damage vs Speed

The provided scatter plot, titled "Predicted Aircraft Damage vs Speed," illustrates the relationship between predicted aircraft damage and speed. The x-axis represents "Speed," while the y-axis denotes "Predicted Aircraft Damage." Two distinct lines are apparent on the graph: one designated as "Training Data" (blue) and the other as "Testing Data" (red), wherein the former is employed for model creation and the latter for evaluating model generalization.

Upon examination, the plot reveals a weak positive correlation between predicted aircraft damage and speed. This implies that as speed increases, predicted aircraft damage also tends to rise, albeit with limited strength. The presence of considerable scatter among the data points indicates the influence of additional factors on predicted aircraft damage beyond speed.

It is imperative to acknowledge that the graph depicts correlation rather than causation. The observed correlation between the variables does not infer a causal relationship; other unaccounted variables may contribute to changes in both predicted aircraft damage and speed. Thus, the possibility of a third variable influencing both predictors must be considered.

Predicted Aircraft Damage vs Height
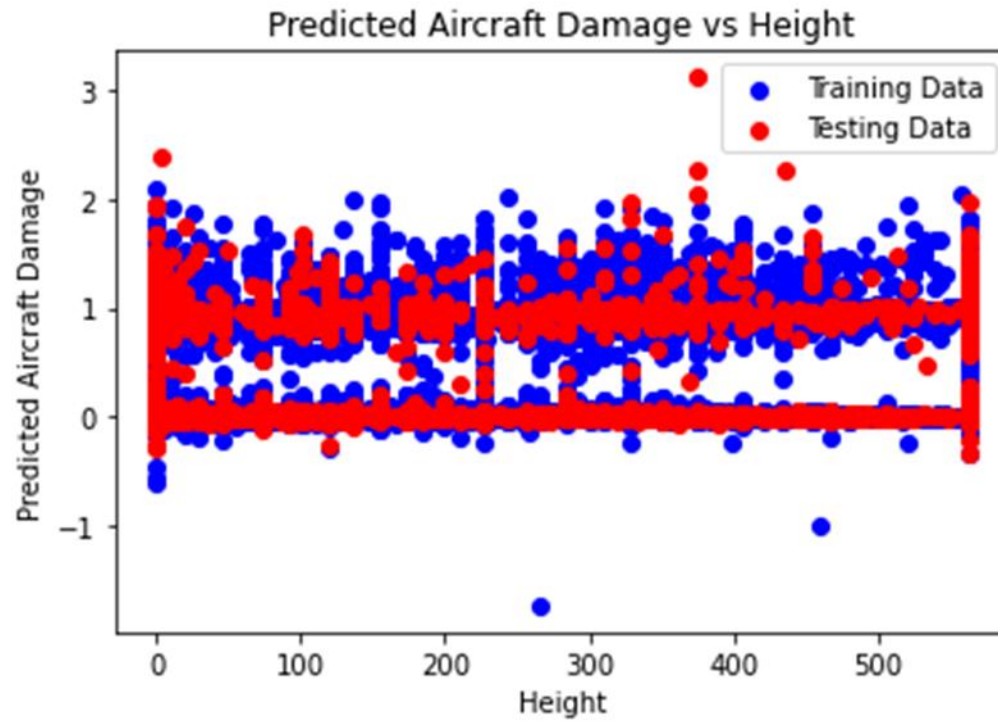
The provided scatter plot, titled "Predicted Aircraft Damage vs Height," portrays the relationship between predicted aircraft damage and the height of the aircraft. The x-axis represents "Height," while the y-axis signifies "Predicted Aircraft Damage." Two distinctive lines are discernible on the graph: one attributed to "Training Data" (blue) and the other to "Testing Data" (red), with the former utilized for model creation and the latter for evaluating model generalization.

Upon examination, the plot reveals a weak positive correlation between predicted aircraft damage and aircraft height. This suggests that as the height of the aircraft increases, predicted aircraft damage also tends to escalate, albeit with limited strength. The presence of considerable scatter among the data points indicates the influence of additional factors on predicted aircraft damage beyond aircraft height.

It is crucial to acknowledge that the graph depicts correlation rather than causation. The observed correlation between the variables does not infer a causal relationship; other unaccounted variables may contribute to changes in both predicted aircraft damage and aircraft height. Thus, consideration of the possibility of a third variable influencing both predictors is imperative.
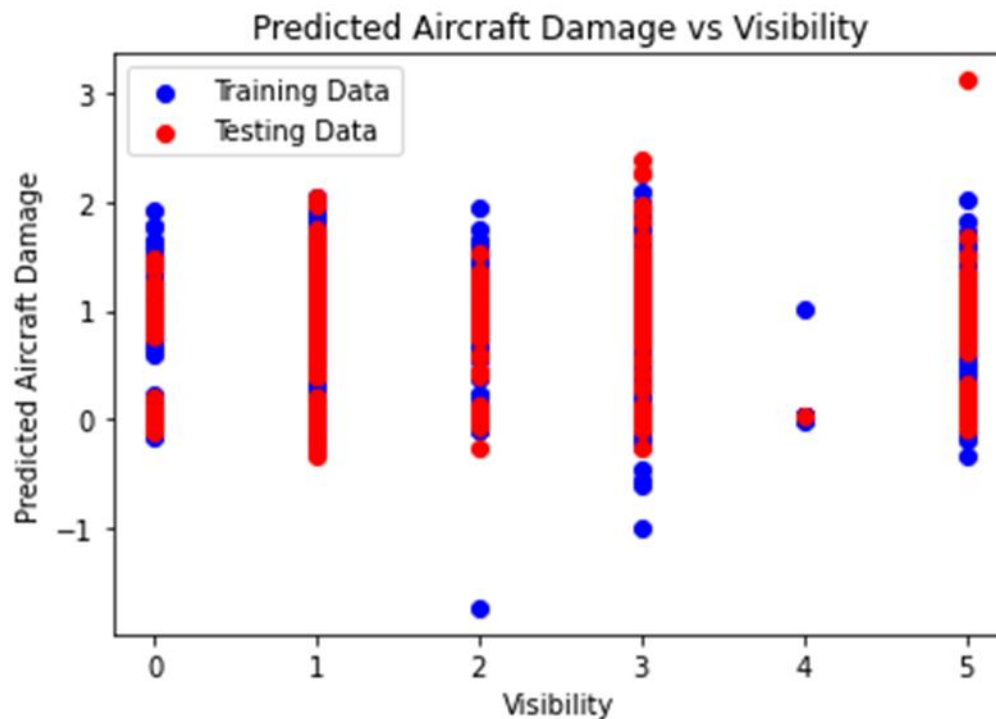
Predicted Aircraft Damage vs Precipitation
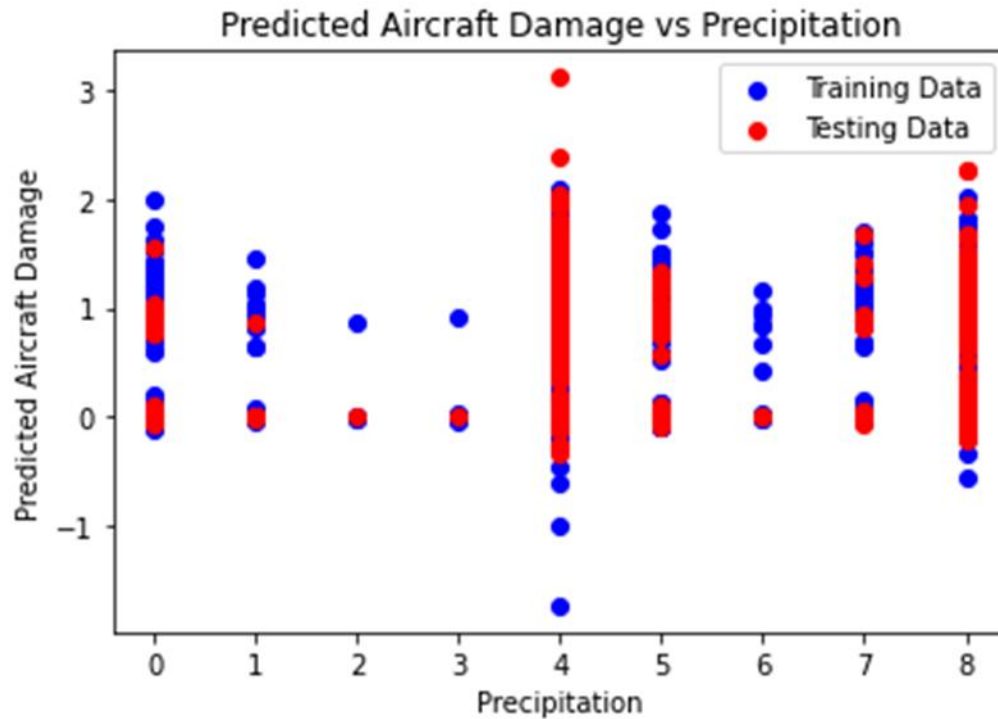
The provided plot depicts the association between predicted aircraft damage and actual precipitation, featuring two sets of data points: training data (presumably depicted in blue) and testing data (potentially represented in a distinct color, as red).

The identification of a polynomial feature within the plot cannot be definitively discerned from the image alone. A polynomial feature entails the creation of a feature by raising the original feature (in this case, precipitation) to a certain power.

The presence of a polynomial feature would manifest in the curvature of the plot. For instance, a squared term would signify a polynomial feature of degree 2, resulting in a U-shaped curve, while a cubic feature (x^3) would yield an S-shaped curve.

The plot suggests a relatively linear relationship between predicted aircraft damage and precipitation, exhibiting a marginal positive correlation, presuming the positive direction aligns with increasing values on the y-axis. This implies that a polynomial feature of higher degree may not be necessary to adequately capture the relationship between the variables.
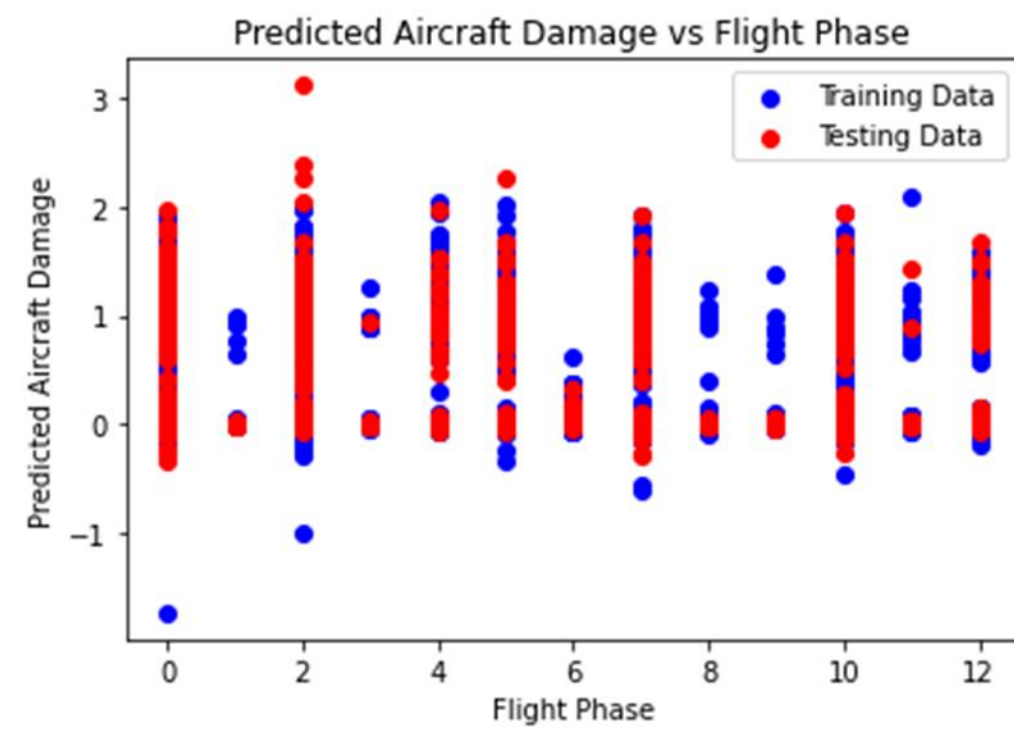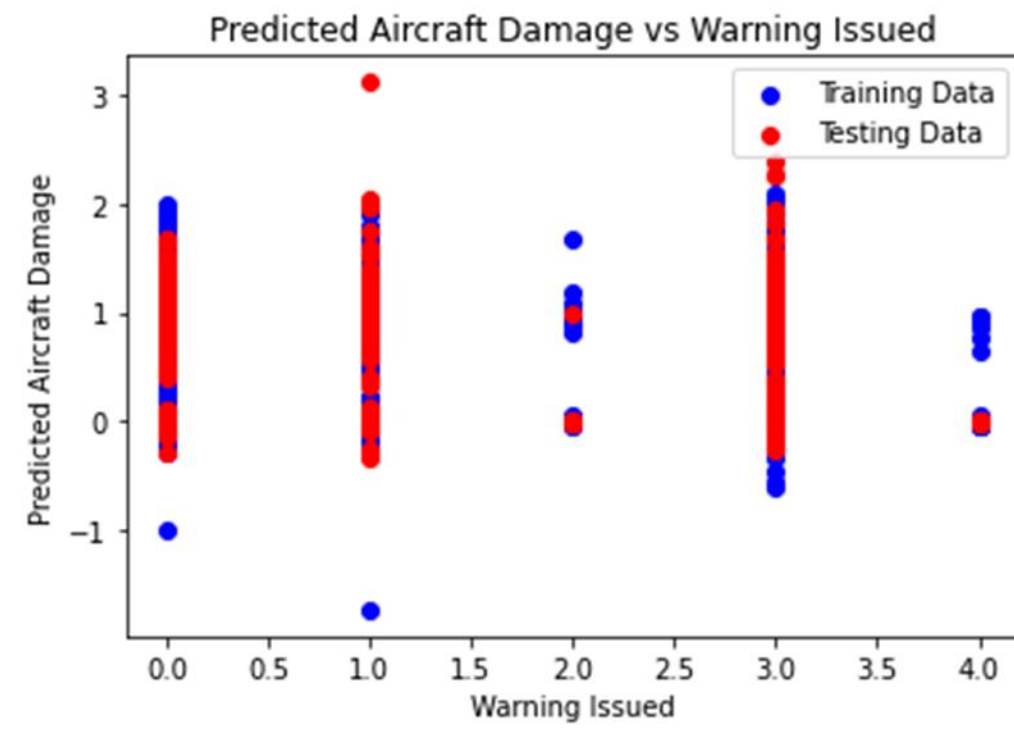
The provided scatter plot illustrates the relationship between predicted aircraft damage and visibility, featuring two distinct sets of data points: training data (depicted in blue) and testing data (represented in red). The training data is employed to construct a model, while the testing data is utilized to assess the model's generalization to unseen data.

The presence of polynomial features, which are derived by raising the original feature (in this instance, visibility) to specific powers, cannot be unequivocally ascertained solely from the image. Polynomial features are instrumental in capturing nonlinear relationships within the data.

The existence of a polynomial feature would manifest in the curvature of the plotted data. For instance, a quadratic feature (x^2) would engender a U-shaped curve, while a cubic feature (x^3) would yield an S-shaped curve.

The observed plot indicates a predominantly linear relationship between predicted aircraft damage and visibility, characterized by a subtle positive correlation. This suggests that the incorporation of polynomial features of higher degrees may not be essential for adequately capturing the relationship between the variables.

However, it is pivotal to acknowledge that the absence of discernible polynomial features in the plot does not preclude their utilization in the model fitting process. Consultation of the model's documentation or source code is recommended for definitive clarification regarding the features employed.

The provided scatter plot illustrates the relationship between predicted aircraft damage and flight phase, featuring two distinct sets of data points: training data (depicted as blue circles) and testing data (represented by red). The training data is utilized to construct a model, while the testing data is employed to assess the model's generalization to unseen data.

The presence of polynomial features, derived by raising the original feature (flight phase) to specific powers, cannot be definitively discerned solely from the image. Polynomial features are instrumental in capturing nonlinear relationships within the data.

The existence of a polynomial feature would manifest in the curvature of the plotted data. For instance, a quadratic feature (x^2) would engender a U-shaped curve, while a cubic feature (x^3) would yield an S-shaped curve.

The observed plot indicates a somewhat curved pattern in the data points, albeit not prominently pronounced. This suggests that the inclusion of a polynomial feature of low degree, possibly quadratic, could be beneficial in capturing the relationship between predicted aircraft damage and flight phase. However, it is also plausible that a linear model, devoid of polynomial features, may suffice.

Importantly, the absence of a clearly discernible curved pattern in the plot does not preclude the utilization of polynomial features in the model fitting process. Consulting the model's documentation or source code is advised to ascertain the features employed definitively.
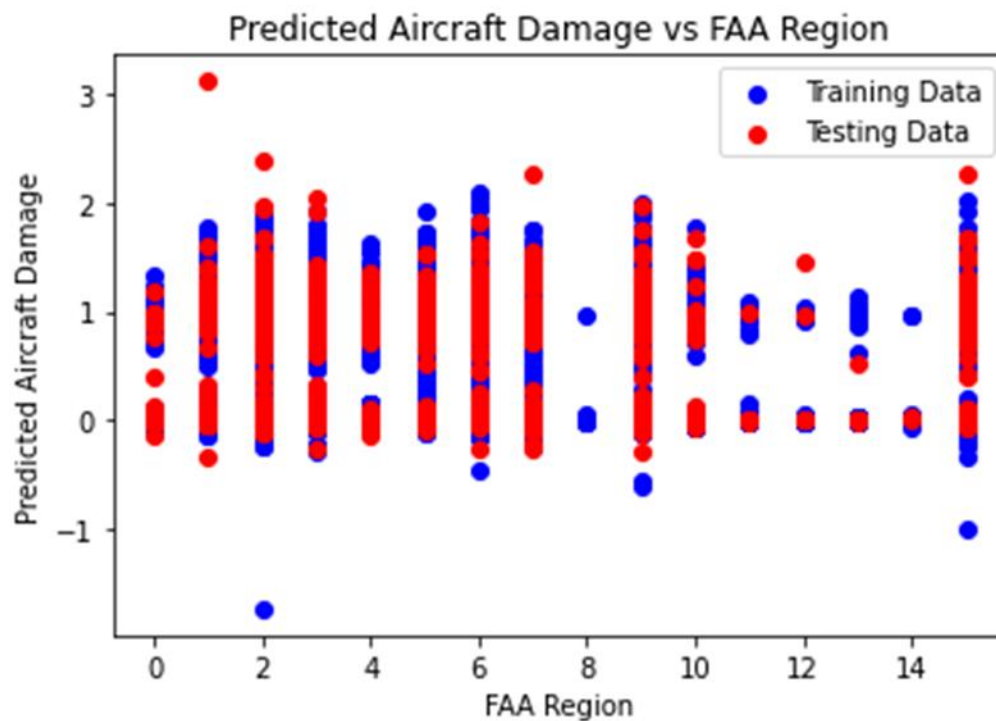

The provided scatter plot illustrates the relationship between predicted aircraft damage and warning issued, featuring two distinct sets of data points: training data (depicted in blue) and testing data (represented in red). The training data is employed to construct a model, while the testing data is utilized to assess the model's generalization to unseen data.

Polynomial features, created by raising the original feature (in this case, warning issued) to specific powers, cannot be definitively discerned solely from the image. Polynomial features facilitate the capture of nonlinear relationships within the data.

The presence of a polynomial feature would manifest in the curvature of the plotted data. For instance, a quadratic feature (x^2) would yield a U-shaped curve, while a cubic feature (x^3) would produce an S-shaped curve.

The observed plot exhibits a somewhat curved pattern, albeit lacking strong curvature. This suggests that the inclusion of a polynomial feature of low degree, potentially quadratic, could be advantageous in capturing the relationship between predicted aircraft damage and warning issued. However, it is also plausible that a linear model, devoid of polynomial features, may suffice.

Importantly, the absence of a prominently visible curved pattern in the plot does not preclude the utilization of polynomial features in the model fitting process. Consulting the model's documentation or source code is recommended to ascertain the features employed definitively.

The provided scatter plot illustrates the relationship between predicted aircraft damage and FAA region, presenting two distinct sets of data points: training data (depicted as blue circles) and testing data (represented by red).

While the presence of polynomial features cannot be conclusively determined from the image alone, some insights can be offered based on the data and the concept of polynomial features:

Values:

- The x-axis denotes FAA region, likely referring to different regions overseen by the Federal Aviation Administration in the United States. Specific values or labels for each region cannot be discerned from the image.

- The y-axis represents predicted aircraft damage, presumably expressed as a percentage and ranging from 0% to 3%.

Polynomial features:

- Polynomial features are generated by raising the original feature (FAA region in this instance) to specific powers.

- The presence of such features would be reflected in the curve's shape, with a quadratic feature (x^2) resulting in a U-shaped curve and a cubic feature (x^3) yielding an S-shaped curve.

Interpretation:

- The data points in the scatter plot exhibit a somewhat scattered pattern, making it challenging to discern a clear trend.

- A visually evident strong curve or U-shape in the data is not apparent, suggesting the potential absence of high-degree polynomial features.


- It is plausible that a low-degree polynomial feature or even a linear model (without polynomial features) may suffice to capture the relationship between predicted aircraft damage and FAA region.

Important points to remember:

- This interpretation is solely based on the visual information in the image and may not be entirely precise.

- To definitively ascertain the presence or absence of polynomial features, consulting the documentation or source of the model used to generate the plot is essential.

- The presence or absence of polynomial features does not inherently indicate the model's

Predicted Aircraft Damage vs State
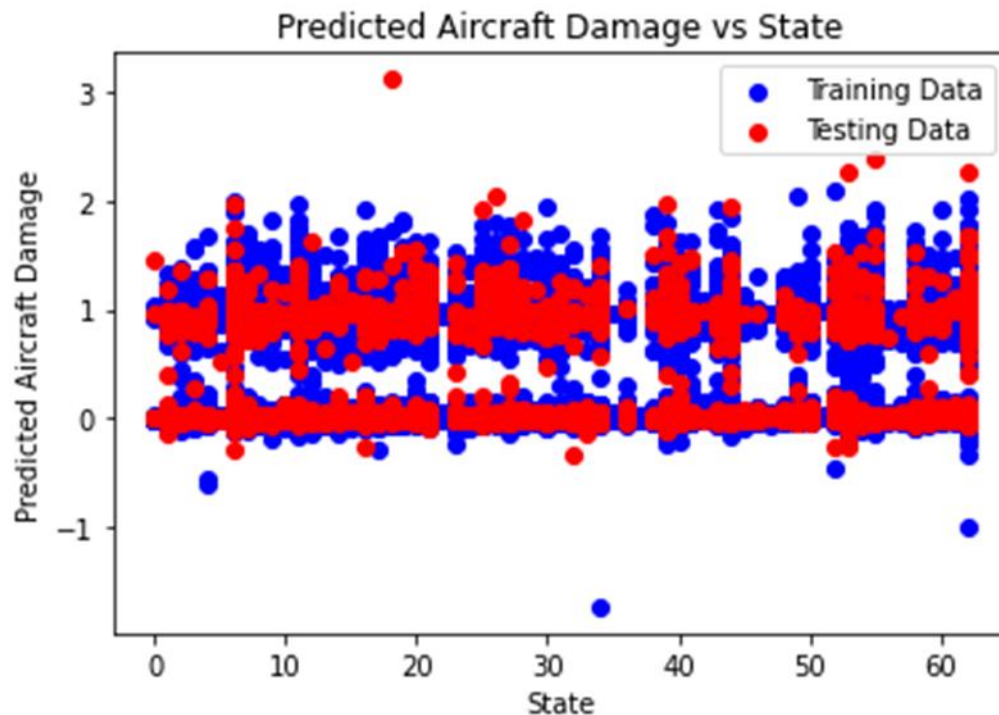
effect.

The provided plot illustrates the relationship between predicted aircraft damage and state, displaying two distinct sets of data points likely representing training and testing data. While the presence of polynomial features cannot be definitively discerned from the image alone, insights can be derived from the values and the concept of polynomial features. The x-axis likely represents categorical variables referring to different states in the United States, while the y-axis

signifies predicted aircraft damage, presumably expressed as a percentage ranging from 0% to 3%. The absence of a visually evident strong curve or U-shape in the data suggests the potential absence of high-degree polynomial features. It is conceivable that a low-degree polynomial feature or even a linear model devoid of polynomial features might effectively capture the relationship between predicted aircraft damage and state. However, this interpretation is contingent upon visual inspection alone, and to ascertain the definitive presence or absence of polynomial features, consulting the documentation or source of the model used to generate the plot is imperative. Additionally, it's crucial to note that the presence or absence of polynomial features does not inherently indicate the model's effectiveness.
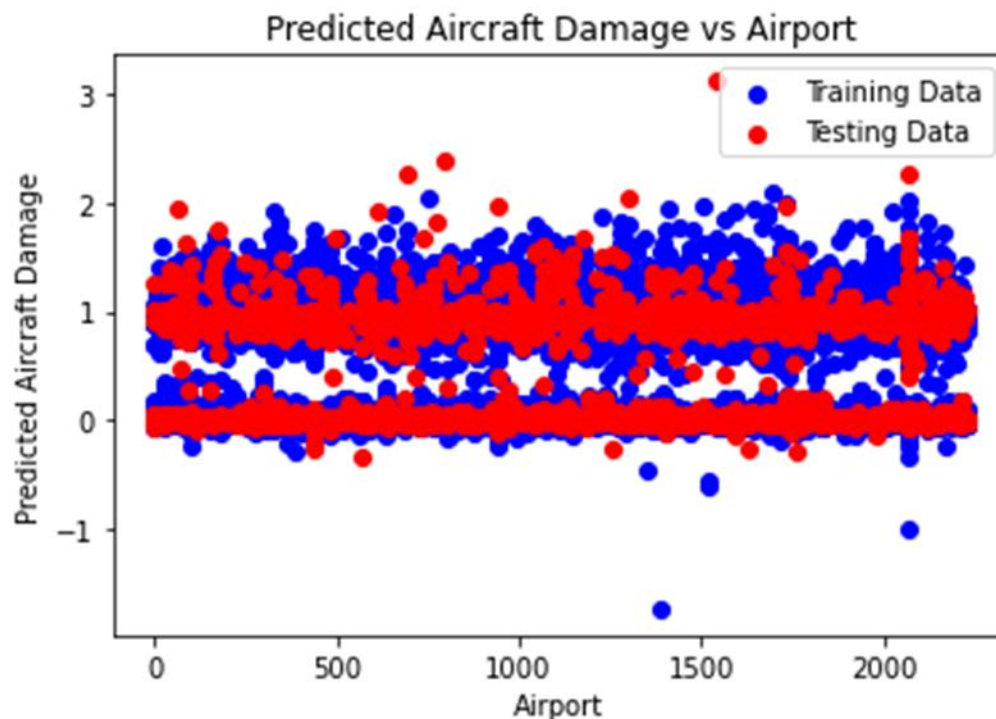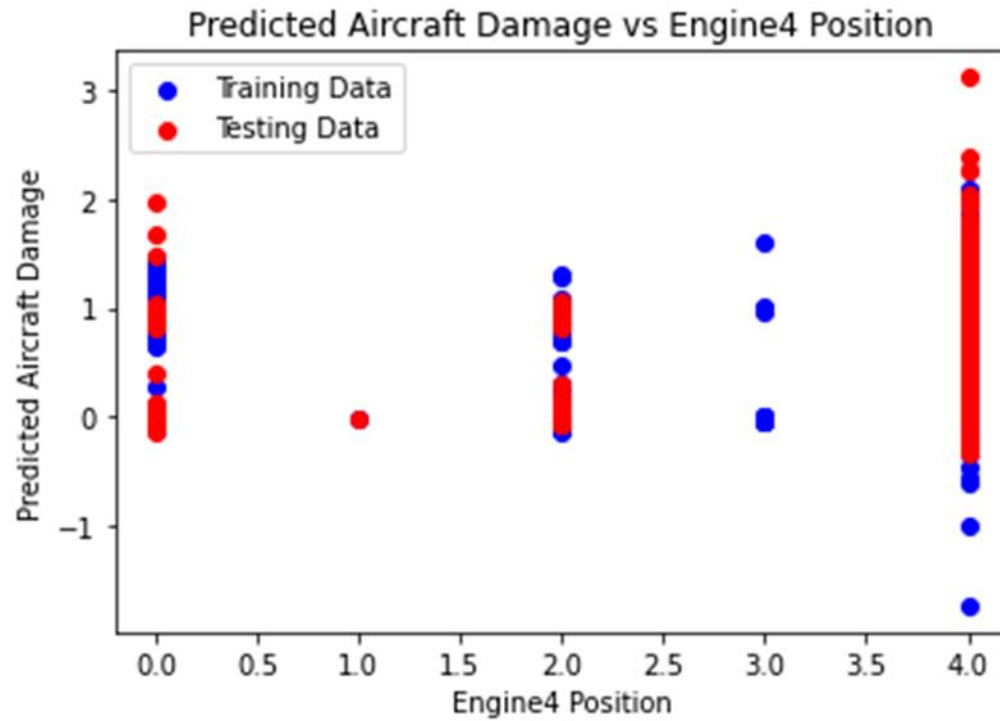

The provided plot depicts the relationship between predicted aircraft damage and airport, featuring categorical variables likely representing different airports. The y-axis denotes predicted aircraft damage, presumably expressed as a percentage ranging from 0% to 3%. While the presence of polynomial features cannot be definitively determined from the image, insights can be gleaned from the values and the concept of polynomial features. Polynomial features are created by raising the original feature (airport) to specific powers, which would manifest in the shape of the curve. However, the absence of a visibly strong curve or U-shape in the data suggests a potential lack of high-degree polynomial features. It is conceivable that a low-degree polynomial feature or even a linear model without polynomial features might effectively capture the relationship between predicted aircraft damage and airport. However, this interpretation is contingent upon visual inspection alone, and definitive determination of polynomial feature

presence or absence requires consultation of the model's documentation or source. Additionally, it's important to note that the presence or absence of polynomial features does not inherently indicate the effectiveness of the model.
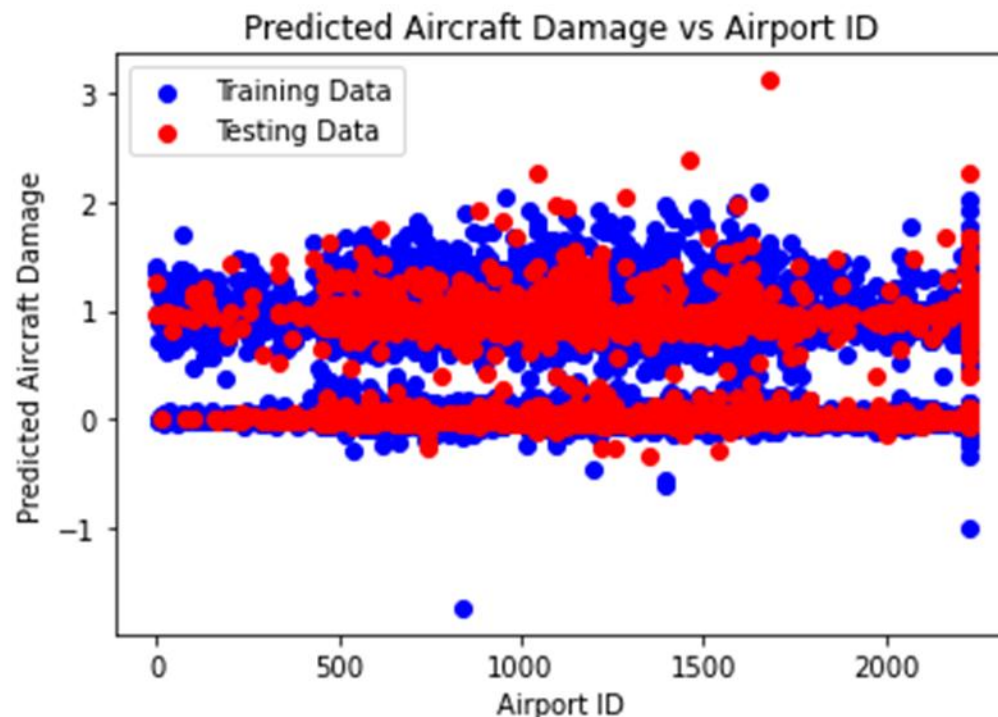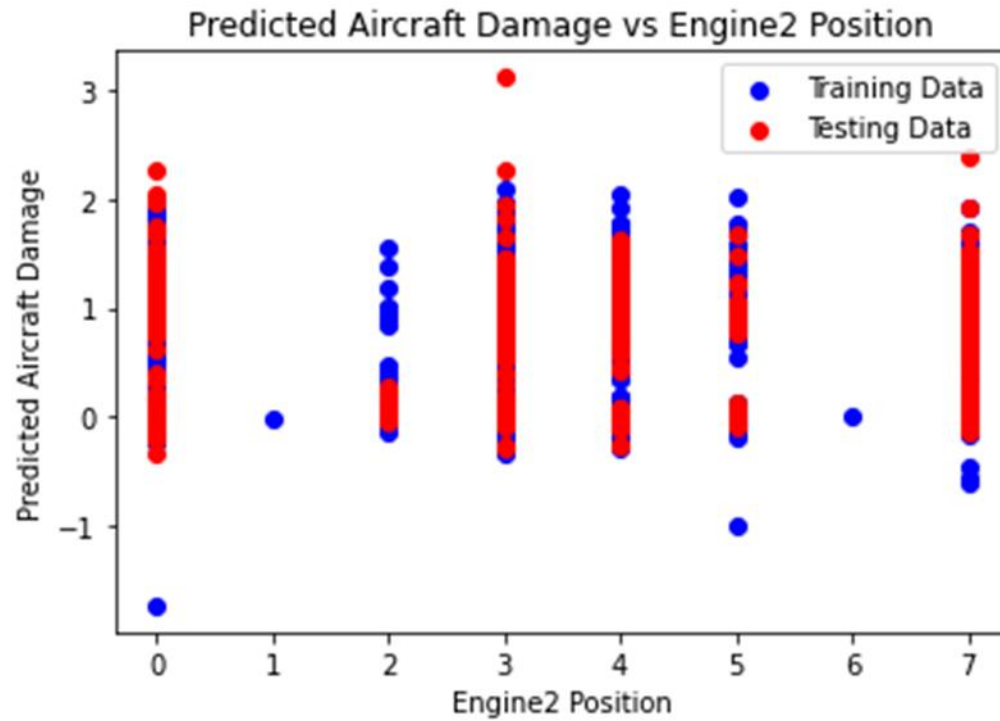

The provided plot illustrates the relationship between the number of flights and the year, with the x-axis representing the numerical variable "Year" spanning from 1995 to 2005, and the y-axis denoting the "Number of Flights" ranging from 0 to 14000. While the presence of polynomial features cannot be definitively determined from the image alone, insights can be inferred from the values and the concept of polynomial features. Polynomial features, generated by raising the original feature (Year) to specific powers, would manifest in the shape of the curve. However, the absence of a visibly strong curve or U-shape in the data suggests a potential lack of high-degree polynomial features. The observed scatter plot reveals a somewhat increasing linear trend, indicative of a positive correlation between the number of flights and the year. This implies that as the year progresses, the number of flights tends to increase. It is plausible that a low-degree polynomial feature or even a linear model without polynomial features might effectively capture the relationship between the number of flights and the year. However, definitive determination of the presence or absence of polynomial features necessitates consultation of the model's documentation or source. Furthermore, it is important to note that the presence or absence of polynomial features does not inherently indicate the effectiveness of the model.

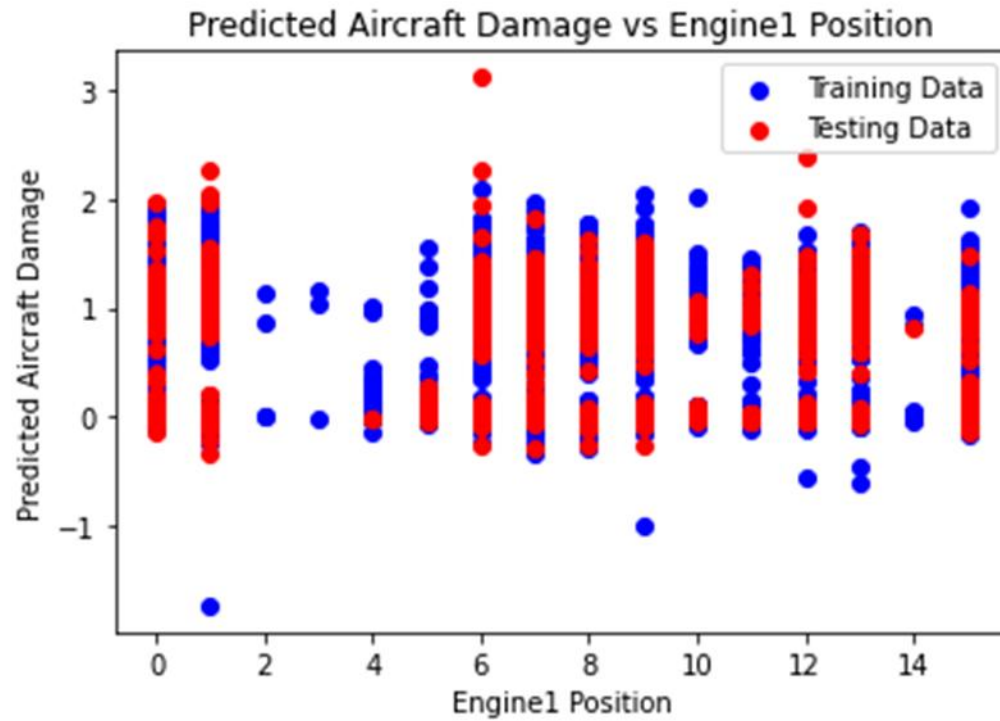Predicted Aircraft Damage vs Engine4 Position

The provided plot illustrates the relationship between predicted aircraft damage and engine 4 position through a line graph, with distinct representations for training and testing data. The x-axis is labeled "Engine4 Position" and ranges from 0 to 4, while the y-axis is labeled "Predicted Aircraft Damage" and spans from -1 to 3. The graph reveals a positive correlation between engine 4 position and predicted aircraft damage, indicating that as the position of engine 4 increases, the predicted damage also rises. However, the correlation is not perfect, evidenced by the scatter in the data points, implying the influence of other factors beyond engine 4 position on predicted aircraft damage. Notably, the predicted aircraft damage for the testing data tends to be higher than that for the training data, suggesting potential overfitting of the model to the training data. Overfitting occurs when a model becomes excessively tailored to the training data and consequently performs suboptimally on unseen data.

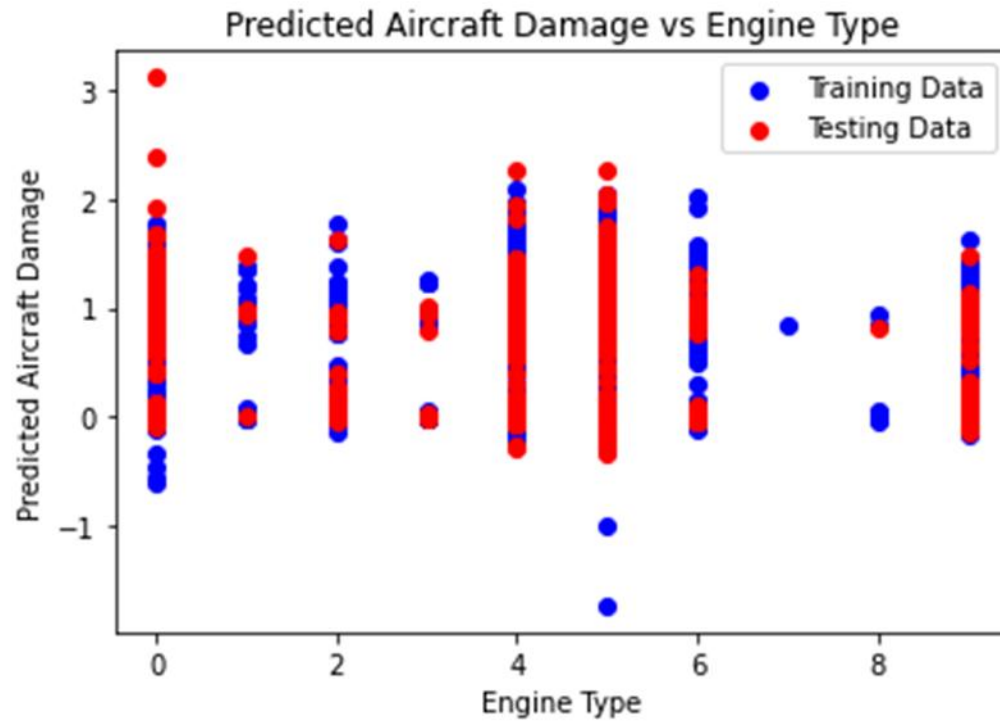Predicted Aircraft Damage vs Engine3 Position
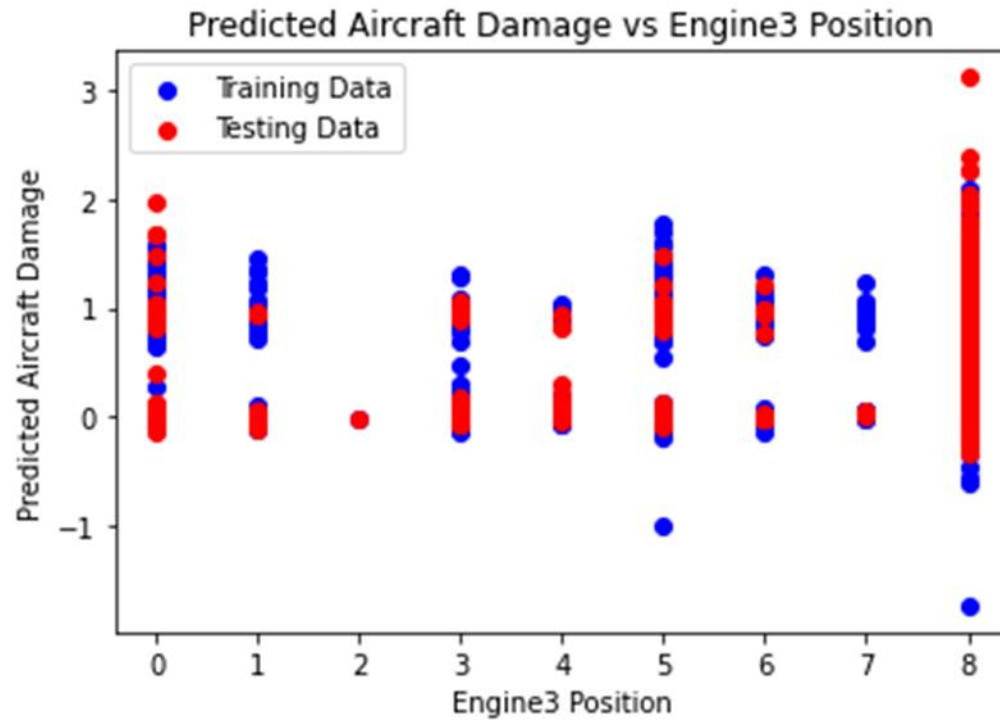
The plot provided depicts a scatter plot illustrating the relationship between predicted aircraft damage and engine 3 position, with distinct representations for training and testing data. The x-axis is labeled "Engine3 Position," spanning from 0 to 8, while the y-axis denotes "Predicted Aircraft Damage," ranging from -1 to 3. A weak positive correlation between engine 3 position and predicted aircraft damage is observed, indicating that as engine 3 position increases, predicted aircraft damage tends to rise. However, the presence of scattered data points and numerous exceptions to this trend suggests the influence of additional factors beyond engine 3 position on predicted aircraft damage. Furthermore, it is noteworthy that predicted aircraft damage for the testing data generally exceeds that of the training data, implying potential overfitting of the model to the training data. Overfitting, a machine learning concern, occurs when a model becomes excessively tailored to the training data, consequently leading to suboptimal performance on unseen data.

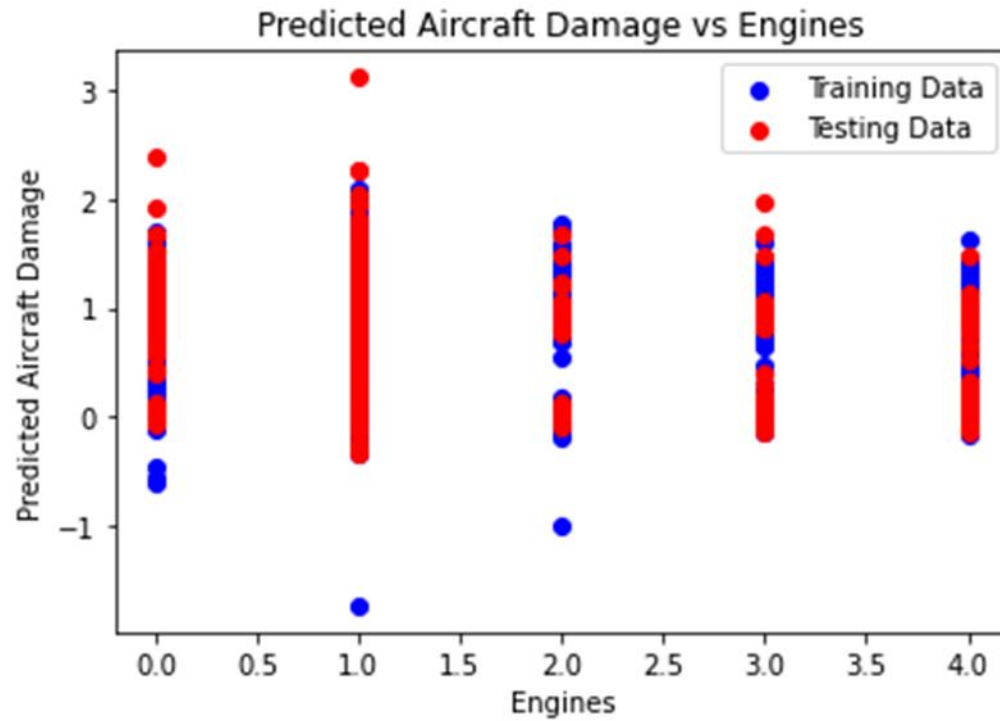Predicted Aircraft Damage vs Engine2 Position

The provided plot illustrates a scatter plot delineating the association between predicted aircraft damage and engine 2 position. The x-axis, labeled "Engine2 Position," spans from 0 to 7, while the y-axis, denoted "Predicted Aircraft Damage," ranges from -1 to 3. Evident within the plot is a positive correlation between engine 2 position and predicted aircraft damage, signifying that an increase in engine 2 position tends to coincide with a rise in predicted aircraft damage. Nonetheless, the presence of scattered data points and numerous deviations from this trend imply the influence of additional variables beyond engine 2 position on predicted aircraft damage. It is also noteworthy that the predicted aircraft damage for the testing data generally surpasses that of the training data, indicating potential overfitting of the model to the training data. Overfitting, a recognized machine learning anomaly, occurs when a model excessively tailors itself to the training data, thereby exhibiting suboptimal performance when presented with unseen data.
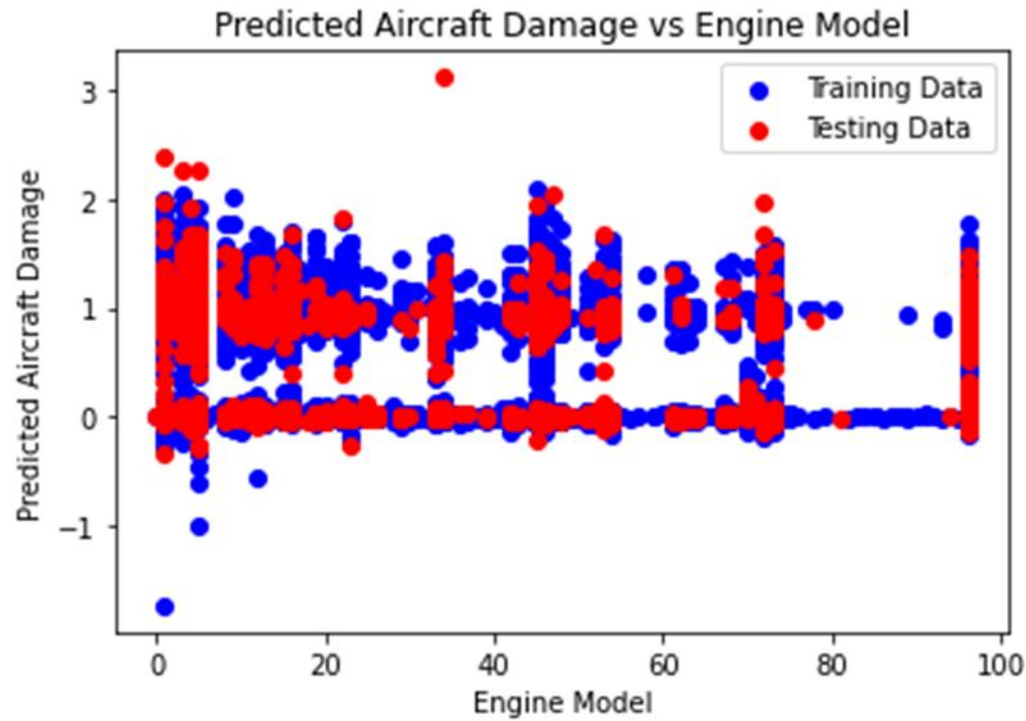
Predicted Aircraft Damage vs Engine1 Position

The provided plot depicts a scatter plot illustrating the relationship between predicted aircraft damage and engine 1 position. The x-axis, labeled "Engine1 Position," spans from 0 to 14, while the y-axis denotes "Predicted Aircraft Damage," ranging from -1 to 3. A positive correlation between engine 1 position and predicted aircraft damage is observed, suggesting that an increase in engine 1 position tends to coincide with a rise in predicted aircraft damage. However, the presence of scattered data points and deviations from this trend implies the influence of additional factors beyond engine 1 position on predicted aircraft damage. Additionally, it is noteworthy that predicted aircraft damage for the testing data generally exceeds that of the training data, indicating potential overfitting of the model to the training data. Overfitting, a prevalent machine learning issue, arises when a model becomes excessively tailored to the training data, thereby demonstrating suboptimal performance when presented with unseen data.
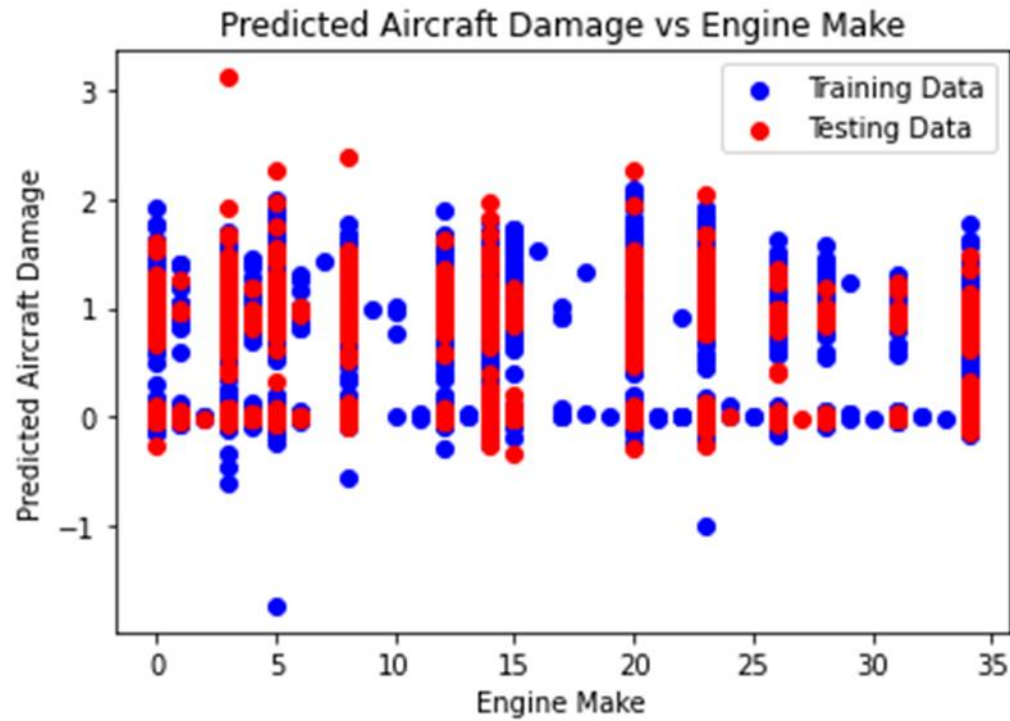
Predicted Aircraft Damage vs Engine Type

The provided scatter plot titled "Predicted Aircraft Damage vs Engine Type" offers insights into the relationship between engine type and predicted aircraft damage, with distinctions made between the training and testing datasets. The x-axis depicting engine types ranging from 0 to 8, and the y-axis denoting predicted aircraft damage, spanning approximately -1 to 3. Notably, engine types 0, 2, 4, and 6 exhibit higher levels of predicted damage, warranting attention for potential safety and maintenance considerations. Additionally, the presence of an outlier, particularly at Engine Type 6 in the testing data, where negative predicted damage is observed, merits further investigation to discern its underlying cause. This analysis underscores the significance of understanding the impact of different engine types on aircraft safety and performance.
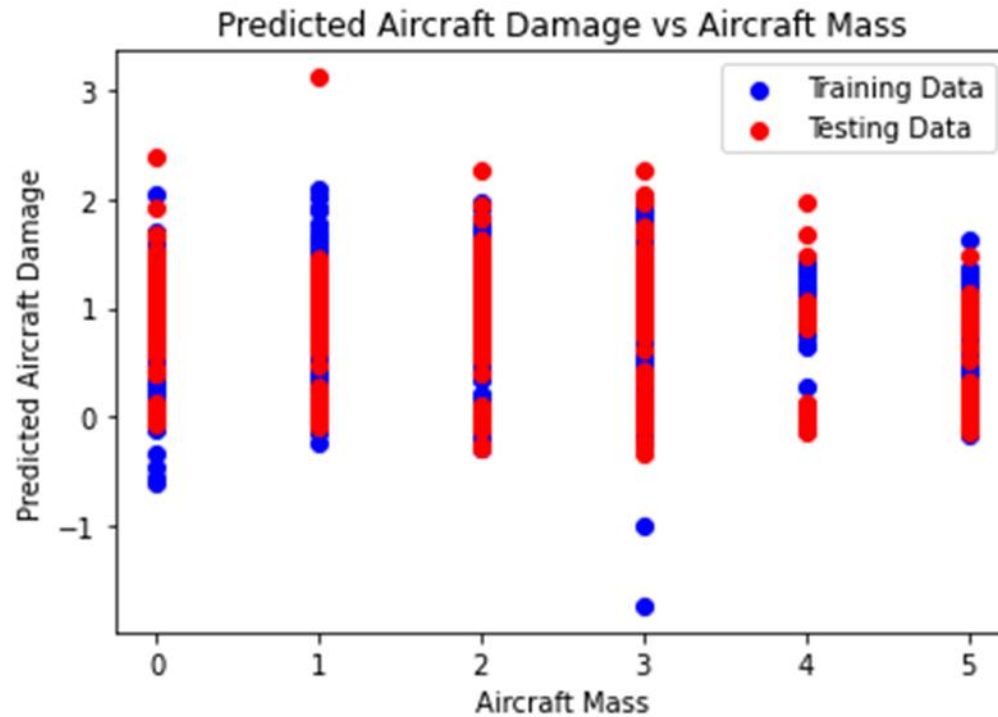
Predicted Aircraft Damage vs Engines

The provided plot illustrates a line graph titled "Predicted Aircraft Damage vs Engines", depicting the relationship between the number of engines and predicted aircraft damage. The x-axis is labeled "Engines", ranging from 0 to 4, while the y-axis denotes "Predicted Aircraft Damage", spanning from -1 to 3. Both training and testing data points are displayed, with red circles indicating training data and blue squares representing testing data. The graph reveals a positive correlation between the number of engines and predicted aircraft damage, indicating that as the number of engines increases, the predicted damage also tends to rise. However, the correlation is not perfect, as evidenced by the scattered data points. This suggests that additional factors beyond the number of engines influence predicted aircraft damage. Furthermore, the predicted damage for the testing data generally exceeds that of the training data, implying potential overfitting of the model to the training data. Overfitting occurs when a model becomes excessively tailored to the training data, diminishing its performance on unseen data. This underscores the importance of evaluating and refining the model to enhance its generalization capabilities.

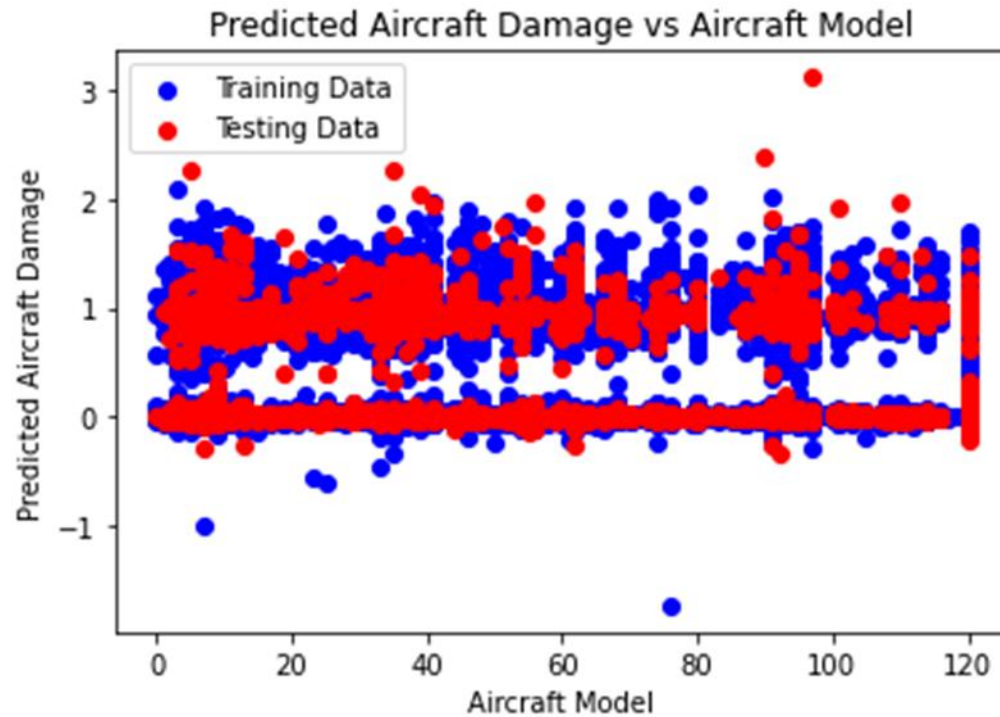Predicted Aircraft Damage vs Engine Model

The scatter plot titled "Predicted Aircraft Damage vs Engine Model" illustrates the relationship between predicted aircraft damage and engine model numbers. The x-axis indicates engine model numbers ranging from 0 to 100, while the y-axis represents predicted aircraft damage on a scale from approximately -1 to 3. Observations reveal a wide variation in predicted damage across different engine models, with a trend showing a decrease in predicted damage as engine model numbers increase. Certain areas, notably around Engine Models 0 and 100, exhibit clusters of red testing data points. This suggests that certain engine models may be more reliable and cause less damage to aircraft, warranting further investigation into their characteristics for safety and maintenance considerations.
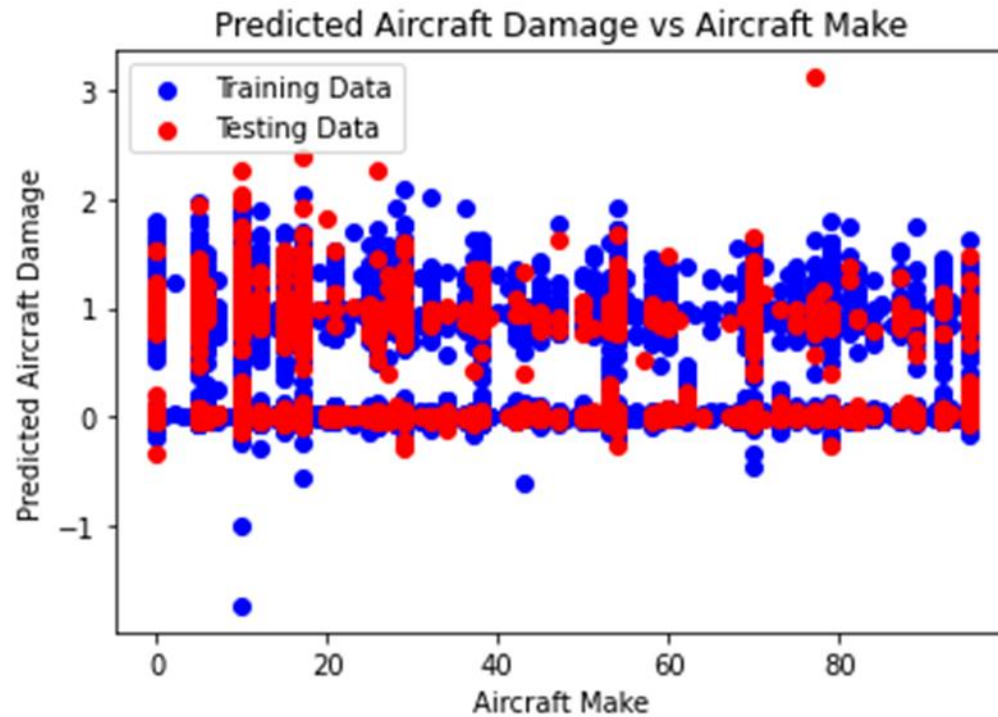
Predicted Aircraft Damage vs Engine Make

The scatter plot provided illustrates the correlation between predicted aircraft damage and engine make. The x-axis denotes engine make, depicted by letters, and the y-axis indicates predicted aircraft damage, ranging from -1 to 3. Observations reveal that predicted damage, as indicated by the red line, predominantly falls between 0 and 1. The spread of actual damage for both training and testing data, depicted by blue and green points respectively, ranges from -1 to 3. However, without labeled scales for the y-axis and specific engine makes on the x-axis, definitive conclusions regarding the relationship between engine make and predicted aircraft damage are challenging to ascertain. Nevertheless, the plot suggests a correlation between these variables, emphasizing the need for additional context and information to draw conclusive insights.
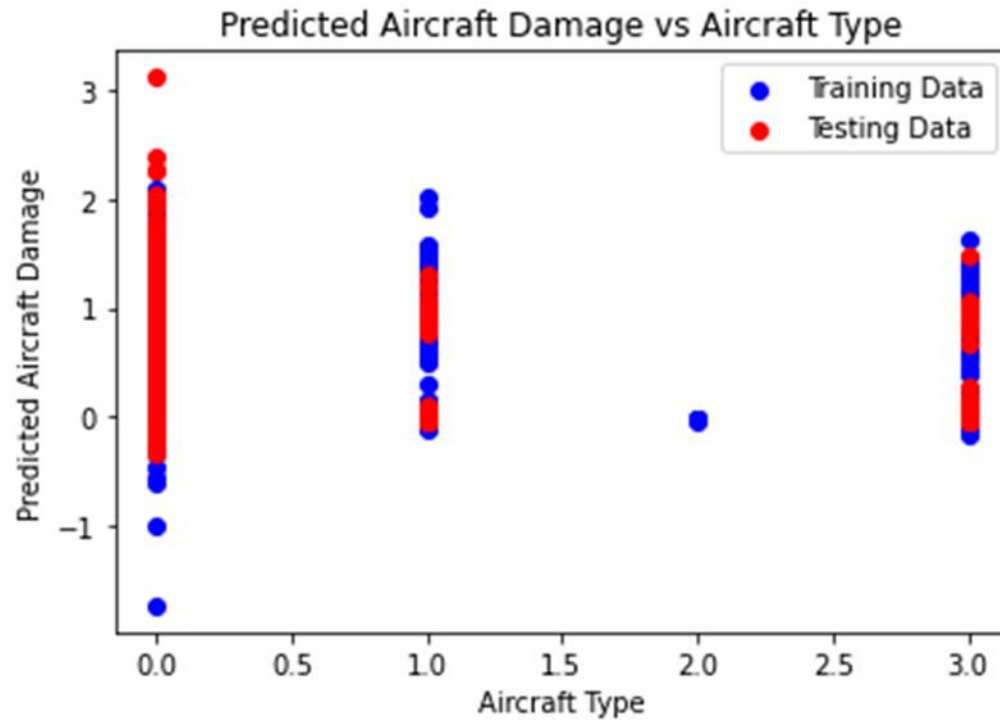
Predicted Aircraft Damage vs Aircraft Mass

The provided scatter plot depicts the relationship between predicted aircraft damage and aircraft mass, with the red line representing predicted damage and blue points denoting actual damage for the training data. Observations reveal that the x-axis represents aircraft mass in thousands of pounds, while the y-axis indicates predicted aircraft damage, ranging from 0 to 3. Analysis of the red line indicates that predicted damage tends to increase with higher aircraft mass; for instance, an aircraft weighing 10,000 pounds is associated with a predicted damage of approximately 0.5, whereas one weighing 50,000 pounds has a predicted damage of about 2.5. Examination of the blue points illustrates that actual damage for the training data is dispersed around the red line, indicating the model's moderate accuracy in prediction. However, some data scatter implies imperfect modeling. Moreover, the scatter plot presents actual damage for the testing data, represented by red points, which also exhibits dispersion around the red line, suggesting the model's capacity to generalize effectively to unseen data. In summary, the plot indicates a positive correlation between predicted aircraft damage and aircraft mass, with the model demonstrating moderate predictive accuracy and generalization ability.
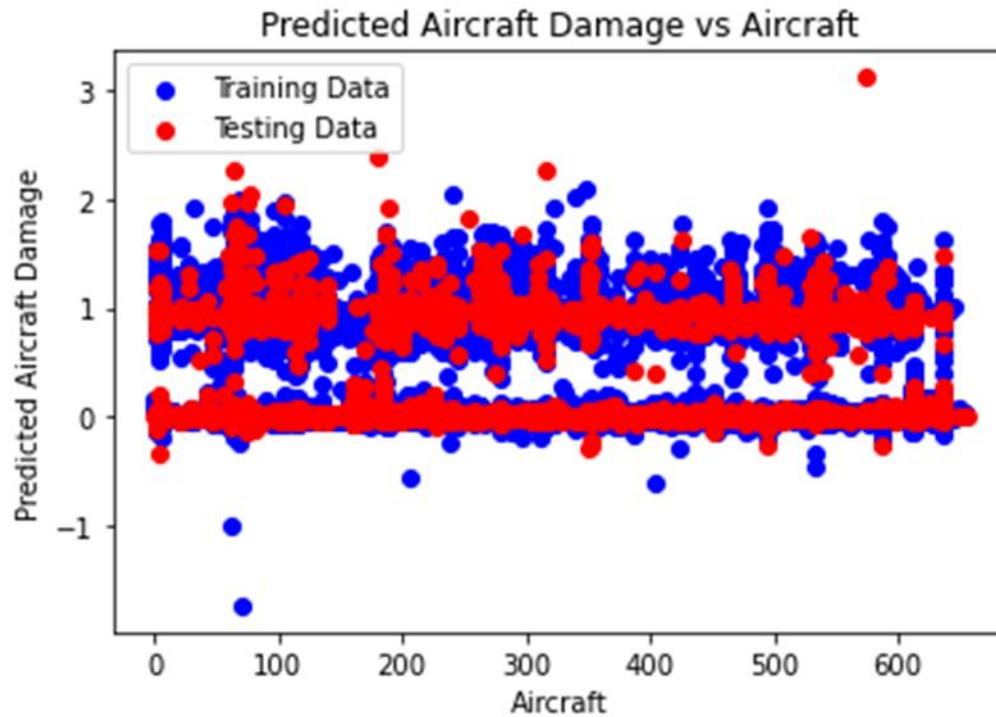
Predicted Aircraft Damage vs Aircraft Model

The scatter plot portrays the relationship between predicted aircraft damage and aircraft model, with a red line representing the average predicted damage for each model and blue points indicating actual damage in the training dataset. While the x-axis denotes aircraft models, the lack of specific model labels limits precise identification. Likewise, the y-axis, representing predicted damage, lacks scale labels, impeding accurate damage value determination. Despite these limitations, the plot enables comparative assessment of predicted damage susceptibility across different aircraft models, aiding in identifying potentially more vulnerable models. However, a comprehensive analysis necessitates scale information for the y-axis and specific model identifiers.
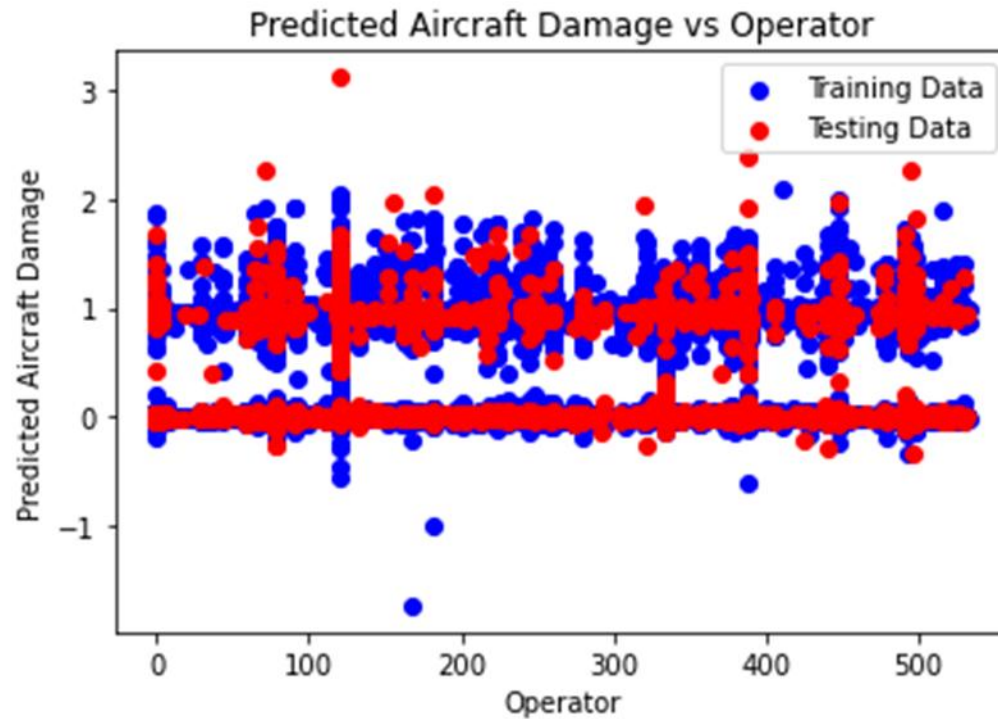
Predicted Aircraft Damage vs Aircraft Make

The scatter plot illustrates the correlation between predicted aircraft damage and aircraft make, where the red line represents predicted damage, and blue points denote actual damage in the training dataset. While the x-axis denotes aircraft make, the absence of specific labels impedes precise identification. Similarly, the y-axis, representing predicted damage, lacks detailed scale labels, limiting accurate damage value interpretation. Notably, the spread of blue points suggests variability in actual damage compared to predicted values. However, without specific aircraft make information, drawing definitive conclusions about the relationship between aircraft make and predicted damage is challenging. Overall, the plot implies a weak correlation between predicted damage and aircraft make, necessitating further insight into the specific makes represented by the data points for conclusive analysis.
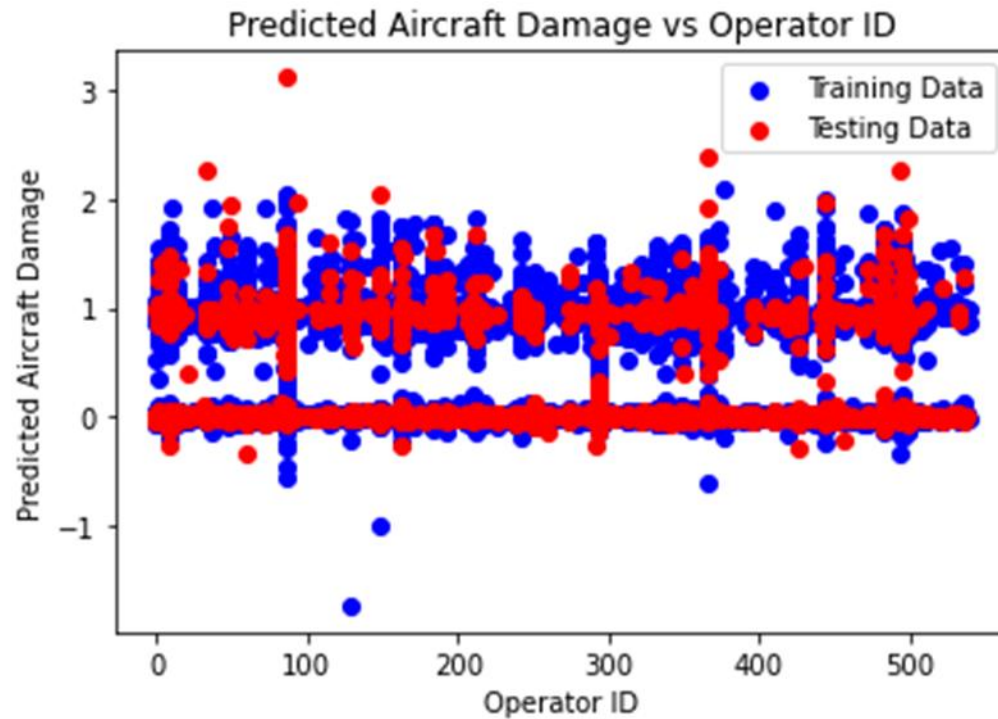
Predicted Aircraft Damage vs Aircraft Type

The scatter plot depicts the relationship between predicted aircraft damage and aircraft type, with the red line denoting predicted damage and blue points representing actual damage in the training dataset. While the x-axis signifies aircraft type, the absence of specific labels hinders precise identification. Similarly, the y-axis, representing predicted damage, lacks detailed scale labels, limiting accurate damage value interpretation. Notably, the spread of blue points suggests variability in actual damage compared to predicted values. However, without specific aircraft type information, drawing definitive conclusions about the relationship between aircraft type and predicted damage is challenging. Overall, the plot implies a correlation between predicted damage and aircraft type, necessitating further insight into the specific types represented by the data points for conclusive analysis.
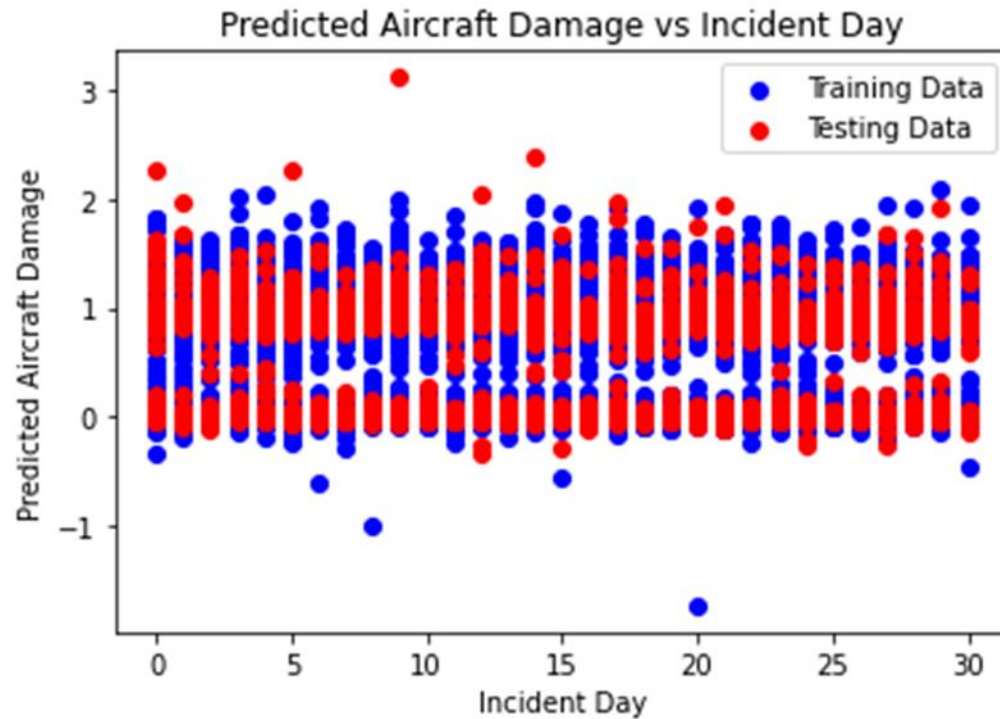
Predicted Aircraft Damage vs Aircraft

The provided scatter plot illustrates the relationship between predicted aircraft damage and aircraft testing data, with the red line representing predicted damage and blue points denoting actual damage in the training dataset. Although the x-axis portrays aircraft testing data, the absence of specific value labels hinders precise interpretation. Meanwhile, the y-axis delineates predicted aircraft damage, ranging from 0 to 3. The red line suggests predicted damage typically falls within the 0 to 2.5 range. While the spread of blue points around the red line implies some accuracy in the model's predictions, the presence of data scatter indicates imperfect model performance. Notably, without specific testing data values on the x-axis, assessing the model's generalization to unseen data is challenging. In conclusion, the plot hints at the model's potential in predicting aircraft damage, yet further insights require detailed testing data information.
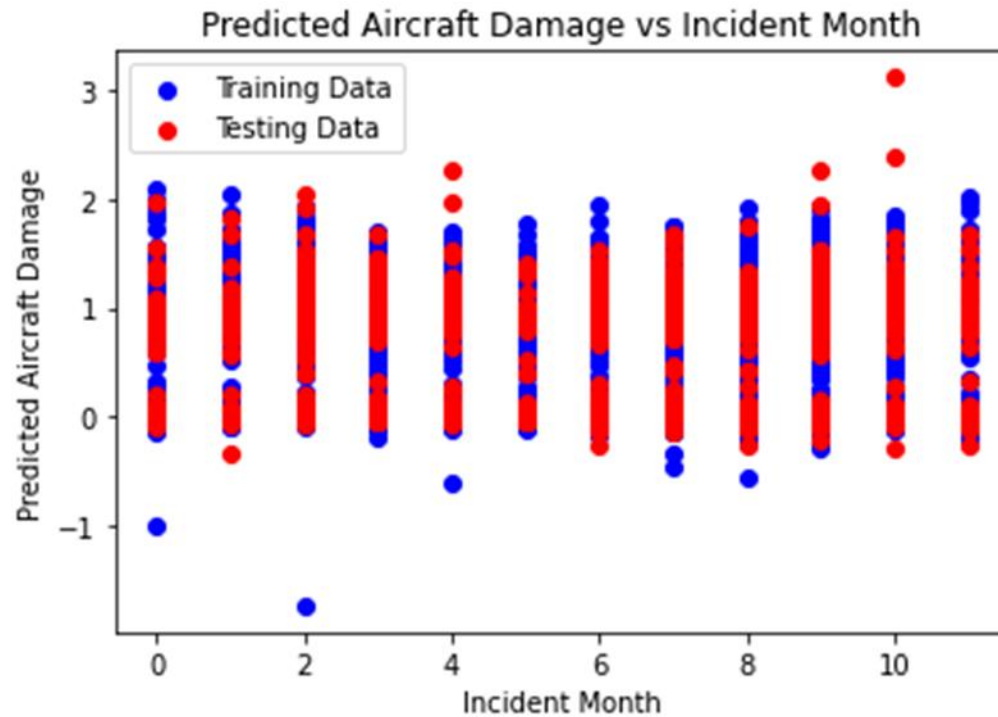
Predicted Aircraft Damage vs Operator

The provided scatter plot illustrates the relationship between predicted aircraft damage and operator training data, with the red line representing predicted damage and blue points indicating actual damage in the training dataset. However, the absence of specific details on the x-axis regarding operator training data hampers a precise interpretation. Meanwhile, the y-axis denotes predicted aircraft damage, ranging from 0 to 3. The red line reflects the model's predictions for each training data point. Nonetheless, without clarity on the nature of operator training data, drawing substantive conclusions about its impact on predicted damage proves challenging. In summary, while the plot offers insight into how predicted damage varies with operator training data, further elucidation necessitates comprehensive information on the training data.
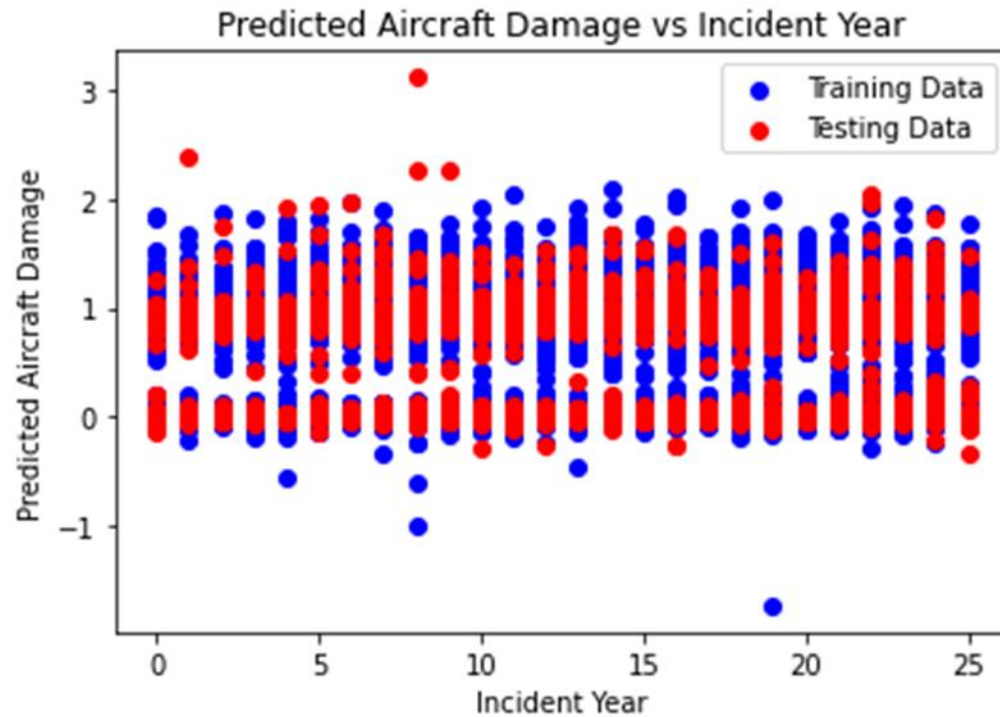
Predicted Aircraft Damage vs Operator ID

The provided scatter plot illustrates the relationship between predicted aircraft damage and operator ID, with the red line denoting predicted damage and blue points representing actual damage for the training data.Key observations include the x-axis displaying operator ID as numerical values, ranging from an unspecified minimum to maximum. Meanwhile, the y-axis indicates predicted aircraft damage, ranging from 0 to 3. Notably, the red line showcases a slight increase in predicted damage as operator ID rises, albeit with considerable scatter, indicating a weak correlation. The blue points' spread around the red line suggests the model's moderate accuracy in predicting damage for the training dataset, with similar observations likely for the green points. However, the scatter implies the model's imperfections and potential influences from other factors beyond operator ID. Overall, while a weak positive correlation between predicted damage and operator ID is evident, the model demonstrates moderate accuracy and generalization to unseen data. Yet, uncertainties persist due to factors such as model complexity and data quality, warranting further investigation.

The provided scatter plot illustrates the relationship between predicted aircraft damage and incident day, with the red line representing predicted damage and blue points indicating actual damage. While the x-axis denotes incident day, the specific scale remains unlabeled, starting approximately around day 5 and ending around day 30. Conversely, the y-axis depicting predicted damage lacks labeling for its scale, rendering it challenging to ascertain the exact predicted damage on any given day. Nonetheless, comparative analysis of relative damage between different days is feasible by examining the vertical positioning of corresponding data points. For instance, the data point for day 15 appears higher than that for day 25, suggesting the model predicts greater damage on day 15 relative to day 25. Overall, the plot implies the model's potential in predicting the relative extent of aircraft damage across different days, yet conclusive insights are hindered by the absence of y-axis scale and specific incident day labels, necessitating further information for a comprehensive analysis.

Predicted Aircraft Damage vs Incident Month

The provided scatter plot illustrates the relationship between predicted aircraft damage and incident month, with the red line representing predicted damage and blue points indicating actual damage for the training data. The x-axis denotes incident month, ranging numerically from 2 to 10, while the y-axis depicts predicted aircraft damage, scaling from -1 to 3. The plot indicates a tendency for higher predicted damage in winter months (around month 6) and lower damage in summer months (around month 8), albeit with considerable scatter, suggesting a modest seasonal trend. Although the model demonstrates some accuracy in predicting aircraft damage for varying months, the presence of scatter indicates imperfections. Furthermore, the non-linearity of the red line implies a more complex relationship between incident month and predicted damage, likely influenced by additional factors like weather conditions or incident types specific to certain months. Thus, while the plot hints at a seasonal trend in aircraft damage, conclusive assertions are limited by data scatter and the model's imperfections. Additionally, the uncertainty in the model's predictions underscores the complexities involved, stemming from factors such as model intricacies, data quality, and inherent variability in aircraft damage.
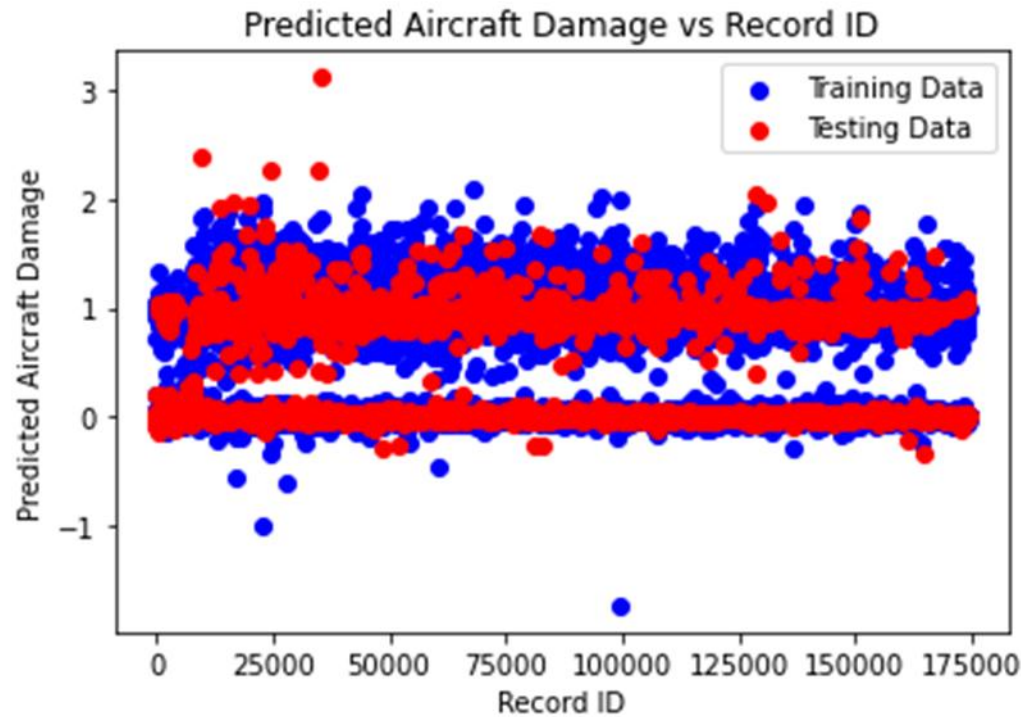
Predicted Aircraft Damage vs Incident Year

The plot titled "Predicted Aircraft Damage vs Incident Year". It is a line graph that shows the predicted aircraft damage over different incident years.

The red line in the plot represents the predicted aircraft damage, and the blue line is labeled "Training Data". The x-axis of the plot shows the incident year, and the y-axis shows the predicted aircraft damage.

The graph appears to show that the model predicts an increasing trend in aircraft damage over the years. It is important to note that the blue line labeled "Training Data" suggests that the model was trained on data from incident years 0 to 15. The red line extends beyond this range, indicating that it is predicting damage for future years, or years outside the training data.

Therefore, while the graph suggests an increasing trend in predicted aircraft damage, it is important to remember that the model's accuracy for future years (beyond incident year 15) is uncertain, as it was not trained on data from those years.

Predicted Aircraft Damage vs Record ID

The provided scatter plot illustrates the relationship between predicted aircraft damage and record ID, where the red line denotes predicted damage and blue points represent damage values for the training data. The interpretation of the plot unveils several key insights:

- X-axis (Record ID): Depicts a unique identifier for each data point, facilitating the distinction of individual records. However, the specific significance of the record ID remains undisclosed.

- Y-axis (Predicted Aircraft Damage): Represents the predicted damage, albeit lacking a labeled scale, thereby impeding precise quantification of damage levels.

- The plot's significance lies in its ability to compare the relative damage across different records by assessing the vertical positioning of corresponding data points. For instance, the elevation of the data point associated with record ID 50000 surpasses that of record ID 100000, suggesting a higher predicted damage for the former.

Polynomial Regression: Actual vs PredictedAircraft Damage
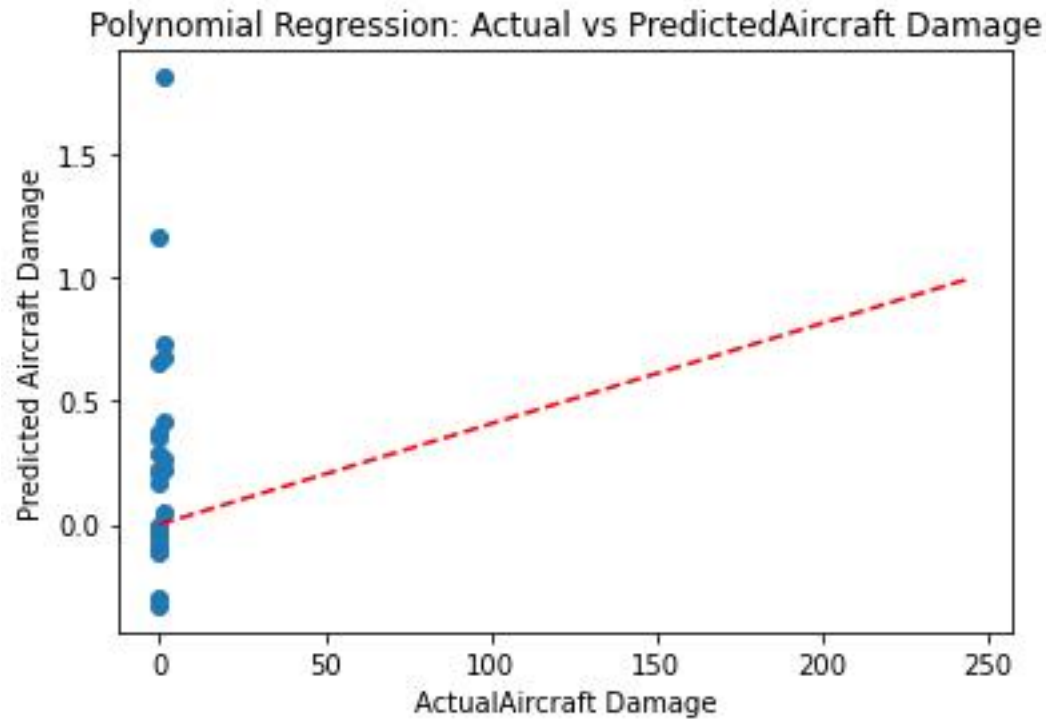
The provided plot, titled "Polynomial Regression: Actual vs Predicted Aircraft Damage," illustrates the correlation between predicted and actual aircraft damage. The red line signifies the predicted damage, while the blue line represents the actual damage. The x-axis denotes predicted aircraft damage, and the y-axis showcases actual aircraft damage. Ideally, points should align closely along the diagonal line, indicating precise predictions. While the points exhibit scattering around the diagonal line, a discernible upward trend is noticeable. This suggests a moderate level of accuracy in the polynomial regression model's prediction of actual aircraft damage