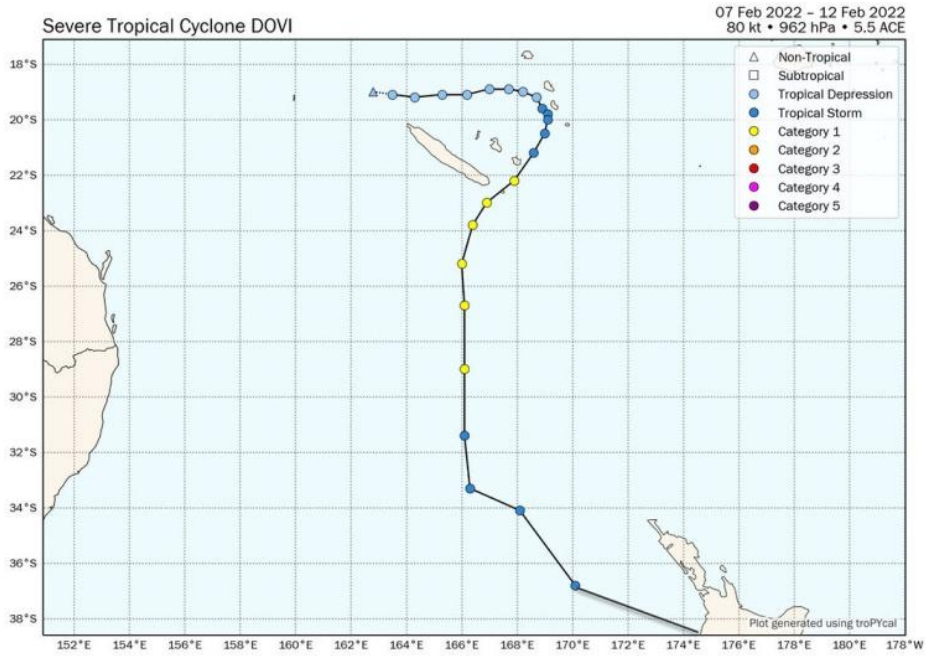
Was Dovi an artifact?



Executive summary

There were many aspects about Dovi that were anomalous or statistically unlikely, especially when taken in conjunction with the location and timing of the 2022 Freedom Convoy and the parliament grounds anti vaccine mandate occupation.

February, 2022

Su	Mo	Tu	We	Th	Fr	Sa
6	7	8	9	10	11	12
13						

Within this brief paper we will include information to help inform the reader so they can come to their own opinion about the statistical improbability of Cyclone Dovi 2022 being a 100% natural event.

It is postulated that when the 'Freedom Convoy 2022' evolved into an occupational protest of the parliamentary grounds an area of convection (Invest 92P) north of New Caledonia that was expected to travel eastward to Fiji was caused to stall over an area of warm water to permit the formation of a tropical (Cyclone 11P) named Dovi. This cyclone was then steered around the south east tip of New Caledonia and then due south down the Tasman sea in an unusually straight path and then steered into the west coast of the North Island in an attempt to bring very unusually high rainfall to Wellington. The motive of this weather modification was to dissipate the occupation in a manner with the least amount of political fallout, preserving the political status quo that was continuing with covid countermeasures and thus undermining legal due process and democratic values. Also in using modified weather for political gain there was a total ethical disregard of the collateral damage and cost attributed to the storm Dovi.

The suggestion is that a request for supra national help was made by the incumbent NZ administration sometime on the afternoon or evening of Tuesday the 8th of February 2022, which is between 080000z and 081200z zulu time. In addition the certainty of Dovi's path became 'high' during the police operation on Thursday the 10th which might have led to the police discontinuing their protestor removal operation that afternoon. It is necessary to refer to 'zulu' time or UTC for clarity as that is the time used by the Joint Typhoon Warning Center (JTWC) which provides the most detailed information available on Invest 92P and Cyclone 11P.

Internet resource https://wiki.chlod.net/jtwc/

Supporting information is provided as various appendices:

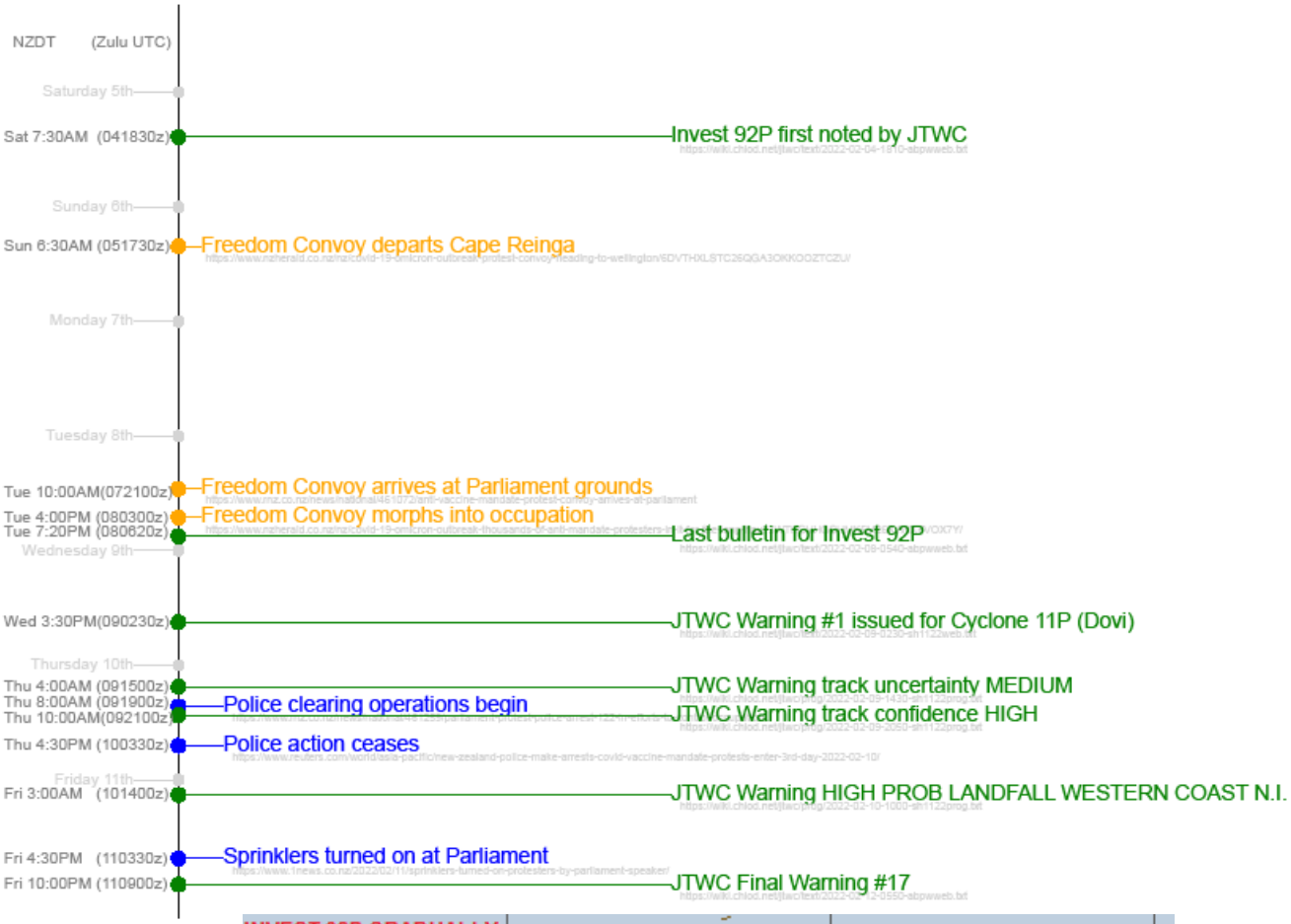
i. **The timeline of weather and convoy events**
ii. **News stories relating to the uniqueness of Cyclone Dovi's weather impact in Wellington**
iii. **Collage of previous South Western Pacific cyclones**
iv. **The collateral damage caused by Cyclone Dovi**
v. **The historical background to modern weather theory, understanding that permits the use of 'levers'**
vi. **The steering of Dovi, was the path natural or artificial? Predicted or Planned?**
vii. **Some other interesting weather events**

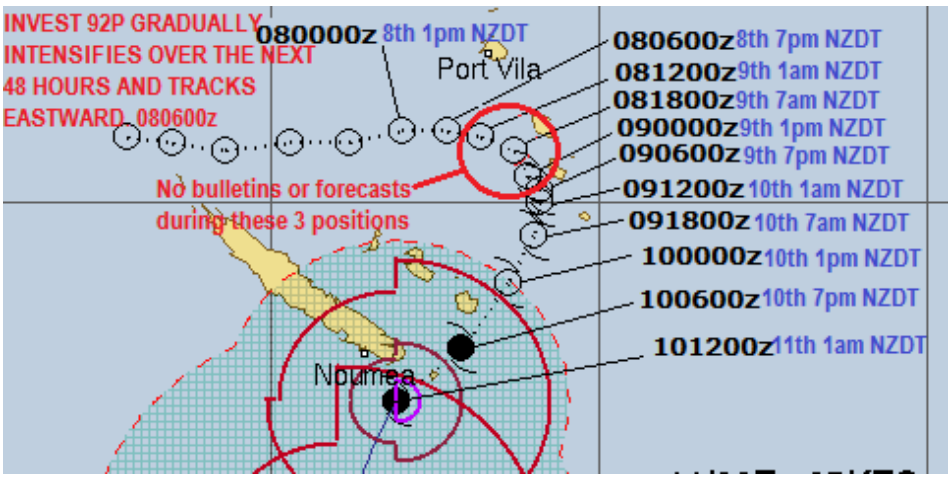
Appendix I

The timeline of weather and convoy events

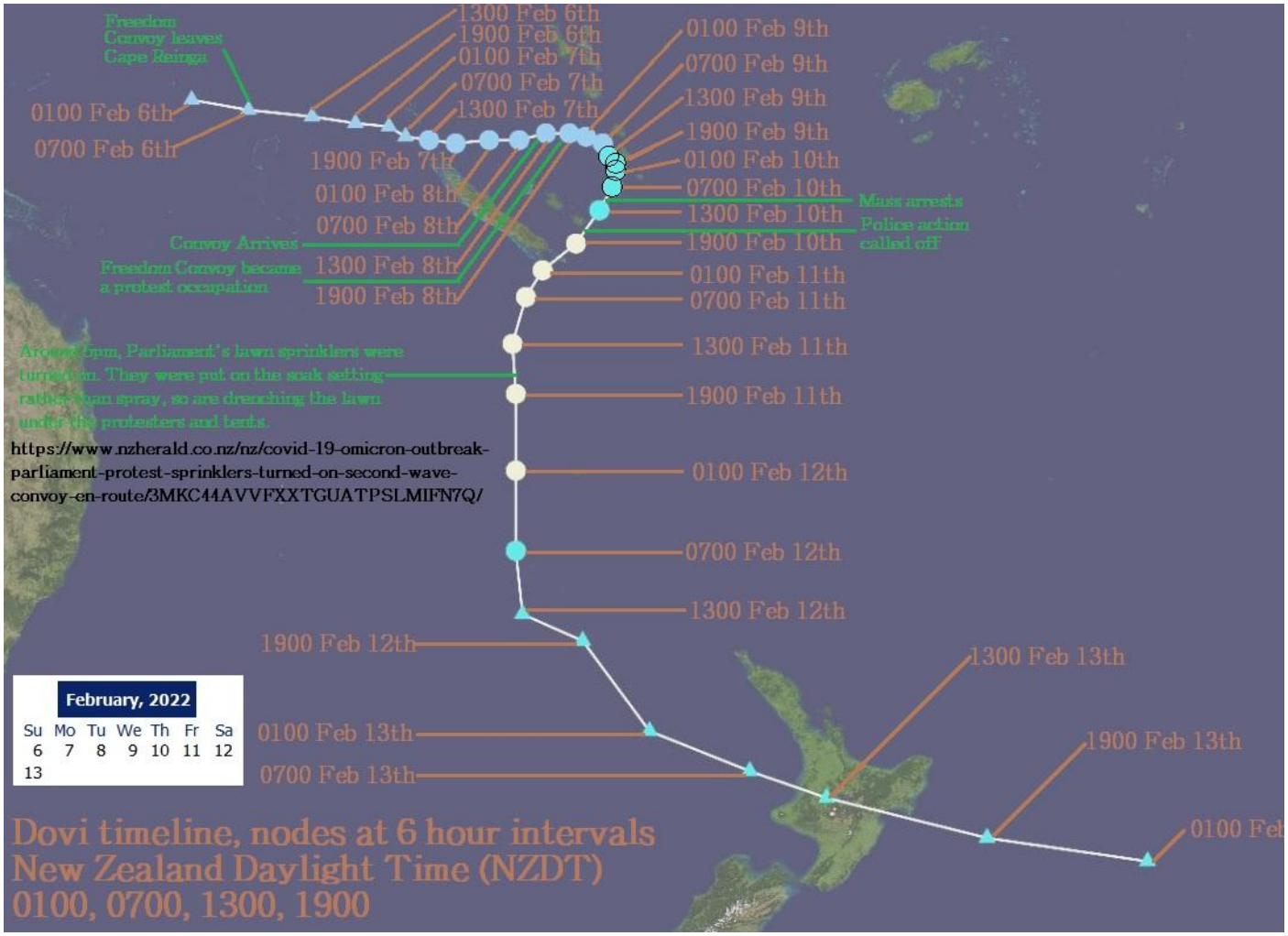
This paper is only interested in the first week or so of the Freedom convoy and the parliamentary occupation, the emphasis is on the timing of the formation of Cyclone Dovi (Cyclone 11P) derived from an area of convection (Invest 92P). How this transformation coincided with the morphing of the convoy into an occupation. Also how the predicted route of Invest 92P changed from an eastward path toward Fiji, to a path that navigated around the southwest tip of New Caledonia and then due south down the Tasman sea. The other point of interest is whether decisions to initiate and then withdraw police action on Thursday the 10th was linked to forecast data (prediction or plan?) concerning strength and path certainty, likewise was the use of the sprinklers by Trevor Mallard precipitated by the decision to steer a cyclone in?

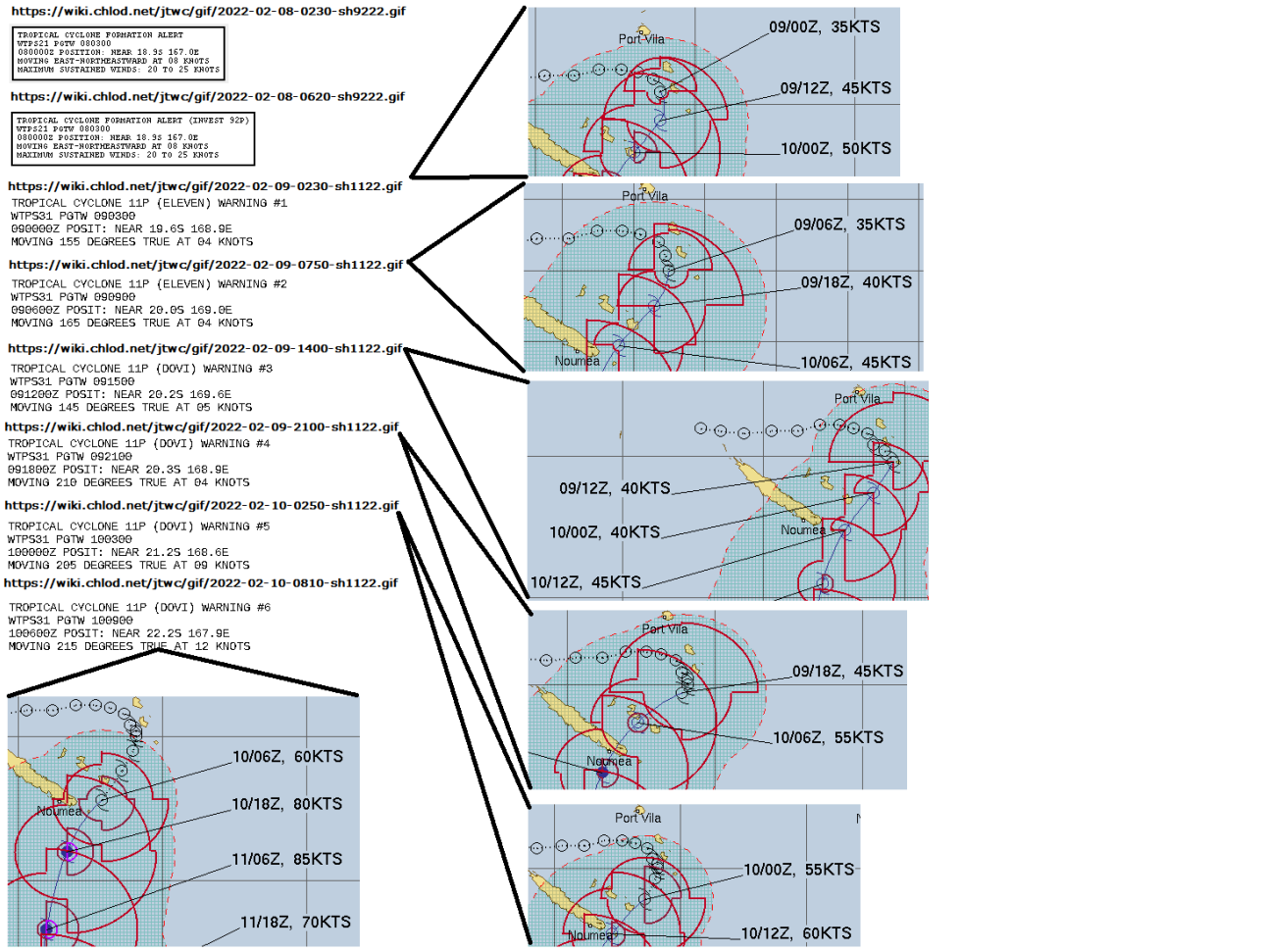
Using the Joint Typhoon Warning Center (JWTC) weather bulletins and forecasts. The JWTC provides forecast reasoning along with certainty ratings of predictions for strength and path. Note that JWTC uses Zulu time which is 13 hours behind New Zealand Daylight Time (NZDT). Strangely during the conversion period from Invest 92P to Cyclone 11P there was an 18 hour hiatus in the 6 hourly bulletins and forecasts





A graphical representation of the timeline showing the position of the weather system during the various events.





Appendix II

News stories relating to the uniqueness of Cyclone Dovi's

Most , New Zealand experiences storms of a tropical origin, but Cyclone Dovi was unusual and noteworthy.

Metservice tweeted.

"We have a tropical system like this moving over New Zealand every year or so, but it's quite unusual for it to path towards the west coast of the North Island like it appears Dovi will,"

The national capital of Wellington measured its wettest February-day in recorded history, with 3.18 inches (81 mm) of precipitation reported at Wellington Airport, which was also the second-wettest day in the city since 1960

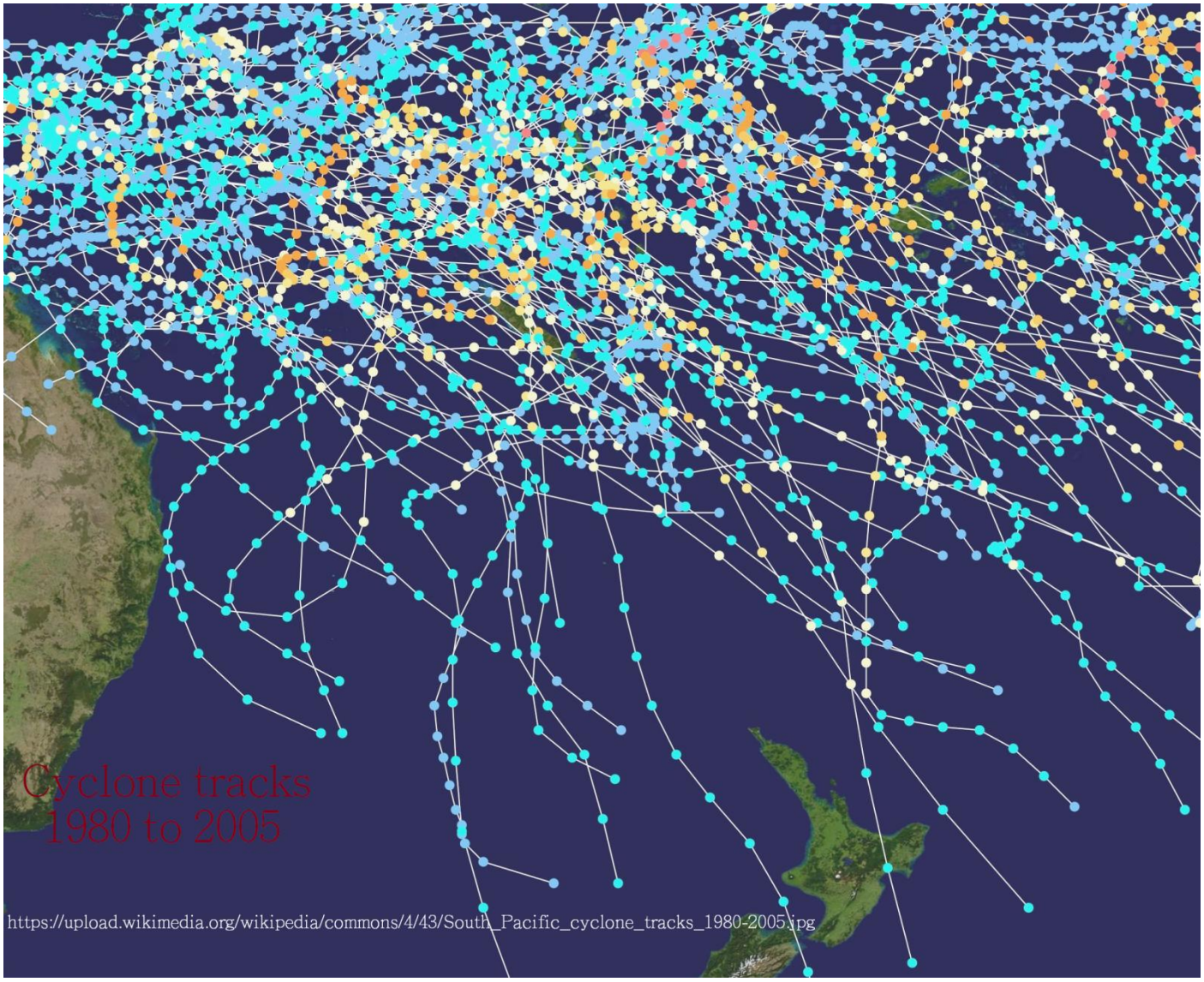
Wellington experienced its second wettest day on record as Cyclone Dovi hit in February 2022, with the Kelburn weather station recording 127.2 mm of rain in 24 hours[1]. City contractors responded to over 45 urgent callouts for flooding, overflowing sewer mains, and landslips. Some roads were closed, and there were accounts of water "shooting up in the air like a geyser" from manholes[1]. - Greater Wellington Regional Council described February's rain—driven by Dovi—as "record wet," with rain return periods described as a "one in 80 year event for 48-hour rainfall", and between one in 40 and one in 100 year for six- to 24-hour durations[2]. - At Wellington Airport, Dovi delivered 121 mm in its most intense 24-hour period, making it the city's "wettest February day in history" and the second-wettest day since records began[3][11]. - Reports from MetService and other media emphasized the impact, with "heavy rain warnings preceding the storm", widespread flooding, evacuations, and closed infrastructure[4][7][12]. Lower Hutt and other nearby locations recorded similar levels of extreme rainfall[4]. - Dovi's rainfall was so significant that "Wellington and other central New Zealand locations recorded near-record or record summer rainfall totals" for the season as a whole, contributing to the wettest or nearly wettest summers on record at several sites[2][9]. - The "exceptional" aspect of Dovi's rainfall was widely recognized, with regional authorities and scientists highlighting the rarity of such totals and the severe disruption caused to Wellington and the lower North Island[1][2][3][11]. These stories from reputable sources capture how Cyclone Dovi's rainfall in Wellington was "historically significant, record-breaking, and disruptive".

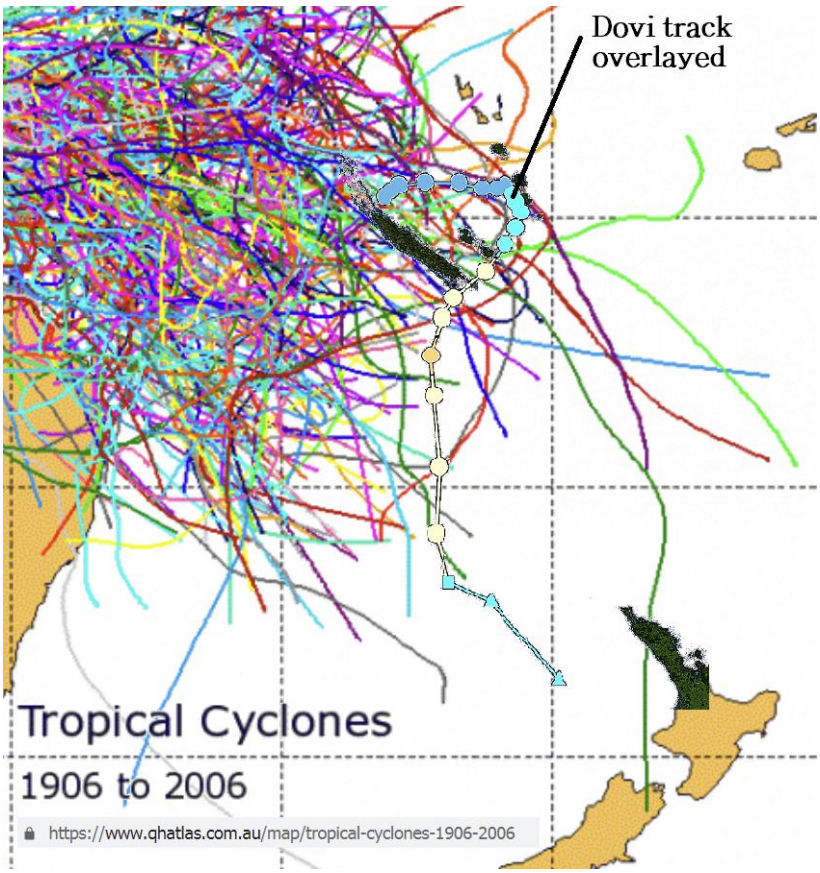
Citations:
[1] Cyclone Dovi: Wellington's second wettest day on record - NZ Herald
https://www.nzherald.co.nz/nz/cyclone-dovi-wellingtons-second-wettest-day-on-record-evacuations-slips-flooding/DFOQMDQLCWT3ZYEBBZN6JPIOHA/
[2] [PDF] Climate briefing Summer 2021 - Greater Wellington Regional Council
https://www.gw.govt.nz/assets/Documents/2022/03/Seasonal_Update_Summer_2022.pdf
[3] Cyclone Dovi (2022) - Wikipedia https://en.wikipedia.org/wiki/Cyclone_Dovi_(2022)
[4] Weather: Cyclone Dovi strikes New Zealand - heavy wind, rain in ...
https://www.nzherald.co.nz/nz/weather-cyclone-dovi-strikes-new-zealand-heavy-wind-rain-in-wellington-auckland-and-across-north-island-top-of-south-island/QK46BQXWWHVUUPXOA7UU2H6WOU/
[5] Weather: Cyclone Dovi headed towards New Zealand - NZ Herald
https://www.nzherald.co.nz/nz/weather-cyclone-dovi-headed-towards-new-zealand/Q2LUMLR7ED7R6BQ7M37TG4S2CA/
[6] 2022 is one for the record books - MetService Blog https://blog.metservice.com/2022_Weather_Recap
[7] Hotspot Watch 10 February 2022 - NIWA
https://niwa.co.nz/news/hotspot-watch-10-february-2022
[8] Remnants of Cyclone Dovi forecast to make landfall in NZ on Sunday
https://www.1news.co.nz/2022/02/10/tropical-cyclone-dovi-forecast-to-make-landfall-in-nz-on-sunday/
[9] Summer 2021-22 | Earth Sciences New Zealand - NIWA
https://niwa.co.nz/climate-and-weather/seasonal/summer-2021-22
[10] Ex-Tropical Cyclone Dovi Urges Careful Planning For Future ...
https://business.scoop.co.nz/2022/04/07/ex-tropical-cyclone-dovi-urges-careful-planning-for-future-extreme-events/
[11] Ex-Tropical Cyclone Dovi Urges Careful Planning For Future ...
https://www.scoop.co.nz/stories/SC2204/S00009/ex-tropical-cyclone-dovi-urges-careful-planning-for-future-extreme-events.htm
[12] Cyclone Dovi brings howling winds and heavy rain to NZ | RNZ News
https://www.rnz.co.nz/news/national/461374/cyclone-dovi-brings-howling-winds-and-heavy-rain-to-nz

Appendix III

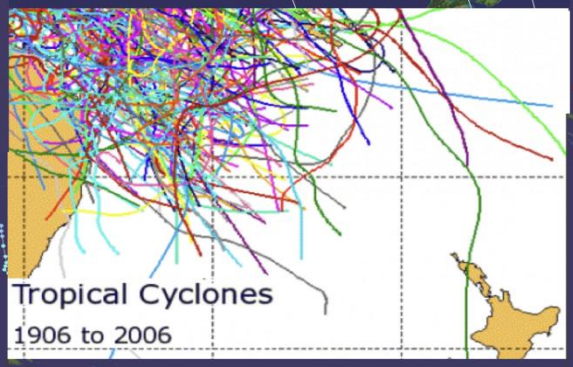
South West Pacific Cyclone paths, collage of previous cyclones

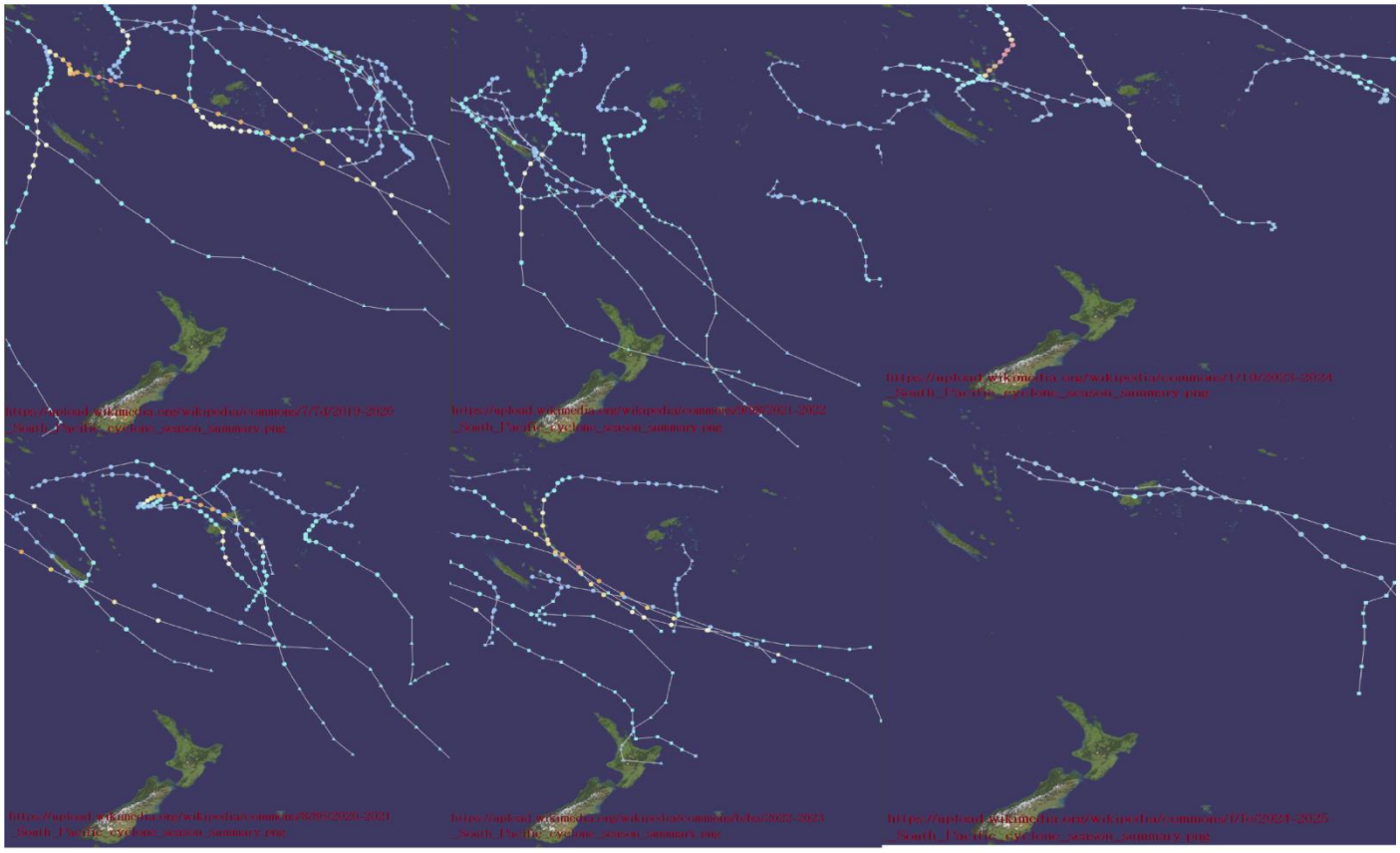
As noted in appendix II, it is unusual for cyclones to impact the west coast of the New Zealand north island. Also it is very unusual for cyclones to have a straight path and even more unusual to have a due south path. Though SW Pacific cyclones often display chaotic paths the most common drift is South East. Study the historic paths pictorially represented below and compare and contrast them with Cyclone Dovi's path.


Cyclone tracks
1980 to 2005
https://upload.wikimedia.org/wikipedia/commons/4/43/South_Pacific_cyclone_tracks_1980-2005.jpg


Dovi track
overlayed
Tropical Cyclones
1906 to 2006
https://www.qhatlas.com.au/map/tropical-cyclones-1906-2006

https://upload.wikimedia.org/wikipedia/commons/4/43/South_Pacific_cyclone_tracks_1980-2005.jpg





The main point of displaying these cyclone track is to show that Dovi had an unusual track and an unusual destination.

The probability of any cyclone forming

and

following a similar track to Dovi

is very low,

maybe less than 1 in 10,000

Appendix IV

The collateral damage caused by Cyclone Dovi

If Cyclone Dovi was an artifact, cui bono?

An analogy.

Bad things happen infrequently, when bad things happen conveniently to some party's benefit, it is natural to ask questions.

For example property fires and unexpected deaths.

In the U.S., about 0.25% of homes experience some level of fire damage each year, but only around 1–3% of these fires result in total loss (complete destruction). This means the annual probability of a home burning down completely is roughly 0.005% (about 1 in 20,000 homes). Typically annual homeowners insurance premiums, which cover fire risk among others, are about 0.6% to 0.8% of a home's value, indicating a generally healthy profit margin for insurers given the low loss frequency. Of total loss fires, approximately 15% to 25% are caused by arson, and a subset of those are linked to insurance fraud. Although exact nationwide data on insurance fraud fires is limited, the timing of an insured fire in conjunction with financial distress or other convenient circumstances is a strong red flag for potential fraud. Investigators rely on this alongside physical evidence and behavioral patterns to confirm fraudulent cases. Overall, while fire losses are relatively rare and mostly partial damage events, arson and insurance fraud remain important concerns for insurers and authorities.

For US men in their 30s, annual death risk is about 1 in 430. Around one-third of deaths are from suicide, homicide, or vehicle crashes—suicide alone is 10%–15%, homicide 1%–3%. Without these causes, risk drops to about 1 in 700–590, mostly from natural causes.

In both cases, especially when an insurance payout is involved, any party benefiting from the death or fire is automatically under suspicion. Guilt is almost automatically implicated and it becomes necessary to prove innocence.

The phrase "cui bono," meaning "who benefits?" in Latin, is attributed to Lucius Cassius Longinus Ravilla, a Roman consul and judge known for his rigorous approach to legal proceedings. He frequently used this question to determine the likely perpetrator of a crime by identifying who stood to gain from the act. This principle is still used today in criminal investigations and legal analysis to determine motive.

So who (stakeholders) stood to benefit from Cyclone Dovi? Cui bono?

Some hold the view that the covid pandemic was a global operation implemented to usher in (inevitable?) socio economic changes. The incumbent New Zealand government at the time of the Freedom Convoy 2022 had overstepped the bounds of a social contract with the people of New Zealand, however the members of the administration were deeply invested in the covid fraud and stood to lose their careers if their authority was undermined. Also it was feared that a successful protest in New Zealand might undermine the global success of the covid pandemic and vaccination operation.

The behavior of the New Zealand government was dictated by supranational authorities and powers, such as; World Economic Forum (WEF, Jacinda being a "young global leader"), 5eyes, World Health Organisation, Pfizer, Blackrock, BIS……..

Thus it was only to be expected that supranational help was available to dispel the protest and protect the Covid measures and those implementing them.

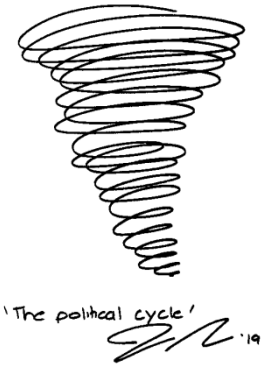
Cyclone Dovi in 2022 caused significant damage, loss of life, and economic costs mainly in New Zealand and other South Pacific regions.

- Loss of Life:
  - There was 1 indirect death reported in New Caledonia due to Cyclone Dovi.
- Damage and Economic Cost:
  - The cyclone caused widespread flood and storm damage across New Zealand, New Caledonia, Vanuatu, and Norfolk Island.
  - Insurance claims in New Zealand related to Cyclone Dovi totaled about NZ$44.43 million (approximately US$40.9 million) from 8,767 claims including home, commercial, vehicle, and marine damages.
  - The overall estimated damage cost related to the cyclone was about US$84 million (2022 USD) across all affected areas.
  - In New Zealand, the Insurance Council estimated the damage at around NZ$54.8 million (roughly US$36.3 million).
  - Cyclone effects included flooding, mudslides, power outages affecting over 50,000 customers in Auckland, road closures, damage to farms and infrastructure, and disruptions to COVID-19 testing and public services.
  - The New Zealand government also allocated $200,000 for relief efforts related to the cyclone.

Insurance losses reflect only part of the overall economic impact as other costs like evacuation, cleanup, infrastructure repair, and uninsured losses are not included.

In summary, Cyclone Dovi in 2022 caused 1 indirect death, generated insurance claims of around NZ$44 million in New Zealand, with total estimated damage around US$84 million across the affected regions, and led to widespread disruption and damage to property and infrastructure[1][2][3][5][9].

Citations:
[1] NZ Cyclone Dovi claims top $40 million - insuranceNEWS.com.au https://www.insurancenews.com.au/local/nz-cyclone-dovi-claims-top-40-million
[2] Cyclone Dovi insurance claims top $44m for February https://www.insurancebusinessmag.com/nz/news/breaking-news/cyclone-dovi-insurance-claims-top-44m-for-february-401327.aspx
[3] FEBRUARY'S CYCLONE DOVI INSURANCE CLAIMS TOP $44 M https://www.icnz.org.nz/industry/media-releases/februarys-cyclone-dovi-insurance-claims-top-44-m/
[4] 2022 February - Cyclone Dovi - Inland Revenue https://www.ird.govt.nz/natural-disasters-adverse-emergency/events-list/2022-february-cyclone-dovi
[5] Cyclone Dovi (2022) - Wikipedia https://en.wikipedia.org/wiki/Cyclone_Dovi_(2022)
[6] Historical emergencies » National Emergency Management Agency https://www.civildefence.govt.nz/resources/previous-emergencies/historical-emergencies/?year=&type=&region=&SecurityID=0e5b0a0e41091b700041a60124be10509e0c49ea&action_updateFilter=update&start=20&limit=All
[7] List of natural disasters in New Zealand - Wikipedia https://en.wikipedia.org/wiki/List_of_natural_disasters_in_New_Zealand
[8] Storm damage cost DOC $28m in past five years | RNZ News https://www.rnz.co.nz/news/national/472364/storm-damage-cost-doc-28m-in-past-five-years
[9] Cost of natural disasters - ICNZ | Insurance Council of New Zealand https://www.icnz.org.nz/industry/cost-of-natural-disasters/
[10] Full extent of Cyclone Dovi damage still being assessed https://www.waitomo.govt.nz/council/news-summary/council-news/2022/march/full-extent-of-cyclone-dovi-damage-still-being-assessed/



In 2018 and 2019

Jacinda Ardern drew two pictures

for charitable fundraising

Was Jacinda's artwork a (prescient) Freudian slip?

Appendix V

The historical background to modern weather theory

understanding the use of 'levers'

John Von Neumann is quoted as saying

"All stable processes we shall predict. All unstable processes we shall control."

John Von Neumann was one of the most influential scientists/mathematicians in the Manhattan Project, blending applied mathematics, physics, and early computer science to solve crucial engineering challenges involved in the development and implementation of the atomic bomb.

Atomic power was taken from the realm of theory to practical conclusion in a short time span of a dozen years. Computers and simulation was a crucial tool in the development of the atomic bomb and atomic power.

What is less well known is that the computers scientists and mathematicians who worked on the atomic project were also working on simulating the weather to initially allow prediction and then control of the weather. It is ridiculous to think that their success with nuclear physics could not be replicated in meteorology, especially after 75 years. James Birdle stated some years ago: 'All contemporary computation stems from this nexus: military attempts to predict and control the weather, and thus to control the future'

In 1945 Zworykin's "Outline of Weather Proposal". Zworykin was the inventor of the TV, so not just a crank but a man who implemented thought into tangible results. It is assumed this proposal was composed jointly with Von Neumann and Von Neumann supplied an introductory letter with the proposal. This proposal suggested that computerized forecasting "would be a first step in any attempt in the control of weather, a goal recognized as eventually possible by all foresighted men." With sufficiently detailed knowledge, "the energy involved in controlling the weather would be very much less than that involved in the weather phenomenon itself." Von Neumann appended a cover letter, adding that "the mathematical problem of predicting weather is one which can be tackled, and should be tackled, since the most conspicuous meteorological phenomena originate in unstable or metastable situations which could be controlled, or at least directed, by the release of perfectly practical amounts of energy."

Charney was another leading 'brain' along with Lorenz in the development of Numerical Weather Prediction (NWP) and understanding chaotic systems (lorenz attractors) that lead to hurricanes; aka, Typhoons and Cyclones in other parts of the world.

The real climate change crisis, according to von Neumann, was not whether we can control climate, but how to decide who sits at the controls. "After global climate control becomes possible," he warned in 1955, "this will merge each nation's affairs with those of every other, more thoroughly than the threat of a nuclear or any other war may already have done."

By early 1960's the power of the computers and the sophistication of simulation software was reaching a breakthrough in weather prediction and understanding, also at this time the early satellites were providing realtime remote sensing in the form of high altitude photography. Flora was one of the first hurricanes to have satellite imagery.

In 1987 Bernard J. Eastlund (who was also a successful academic and industrialist) was granted U.S. Patent 4686605, which describes a method and apparatus for altering a selected region in the Earth's atmosphere, ionosphere, and/or magnetosphere using electromagnetic radiation. "Weather modification is possible by, for example, altering upper atmosphere wind patterns or altering solar absorption patterns by constructing one or more plumes of atmospheric particles which will act as a lens or focusing device. Also as alluded to earlier, molecular modifications of the atmosphere can take place so that positive environmental effects can be achieved." The key concept involves transmitting a modulated beam of electromagnetic energy along Earth's magnetic field lines to excite and increase

the charged particle density (plasma) in that region via electron cyclotron resonance heating. This technique creates an artificial plasma layer or plume that can be maintained and controlled. The altered plasma region can then be used for various purposes such as modifying communications by reflecting signals off the plasma, disrupting or interfering with radio waves, and potentially influencing atmospheric or ionospheric conditions. The invention emphasizes the ability to generate large amounts of electromagnetic power at strategic locations on Earth's surface where usable fuel sources are available, enabling rapid formation and control of the plasma regions. It also includes the capability to modulate the transmitted waves to excite oscillation modes within the plasma for transmission of controlled signals. Overall, the patent describes a sophisticated system for precise, long-lasting manipulation of atmospheric plasma that could be used for communication enhancement, interference, or strategic applications.

US4686605A - Method and apparatus for altering a region https://patents.google.com/patent/US4686605A/en

In the 2020's it is fair to expect weather modification to be seen as a 'mature science'.

Turing's Cathedral: The Origins of the Digital Universe 2012 by George Dyson

https://sseh.uchicago.edu/doc/von_Neumann_1955.pdf

https://www.sciencehistory.org/stories/magazine/manufacturing-the-weather

Zworykin's "Outline of Weather Proposal". https://journal.meteohistory.org/index.php/hom/article/view/65/65

Appendix VI

The steering of Dovi

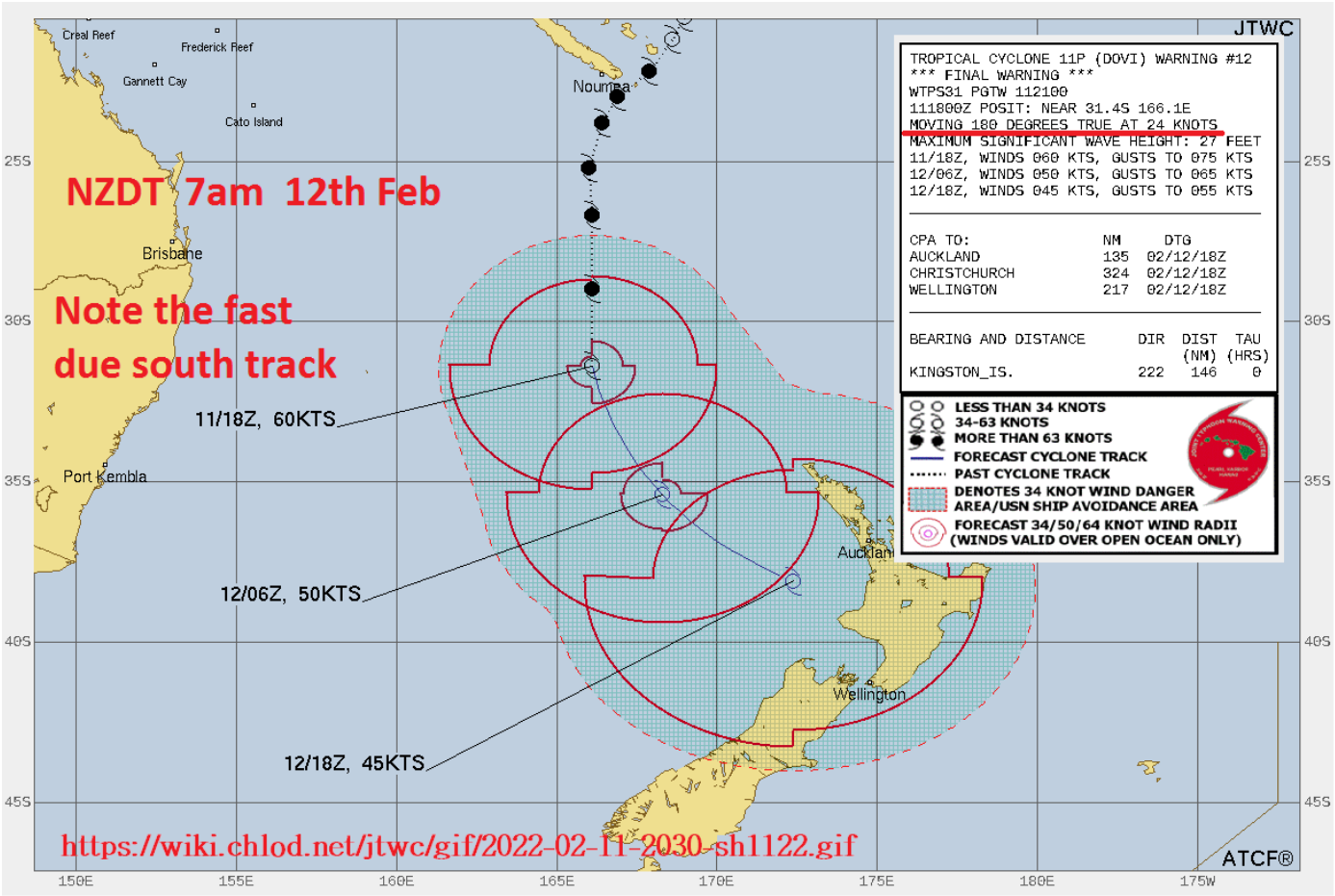
Was the path natural or artificial?

Predicted or Planned?

Forecasts of the predicted path for circular storms are normal. Due to the 'unpredictability' of weather systems, often they do not precisely follow the prediction. In these forecasts the 'mechanism of steering' is referred to, the implication is that the steering mechanism is 100% natural and uncontrollable. Thus giving 'plausible deniability' to any accusation of a storm path manipulation.

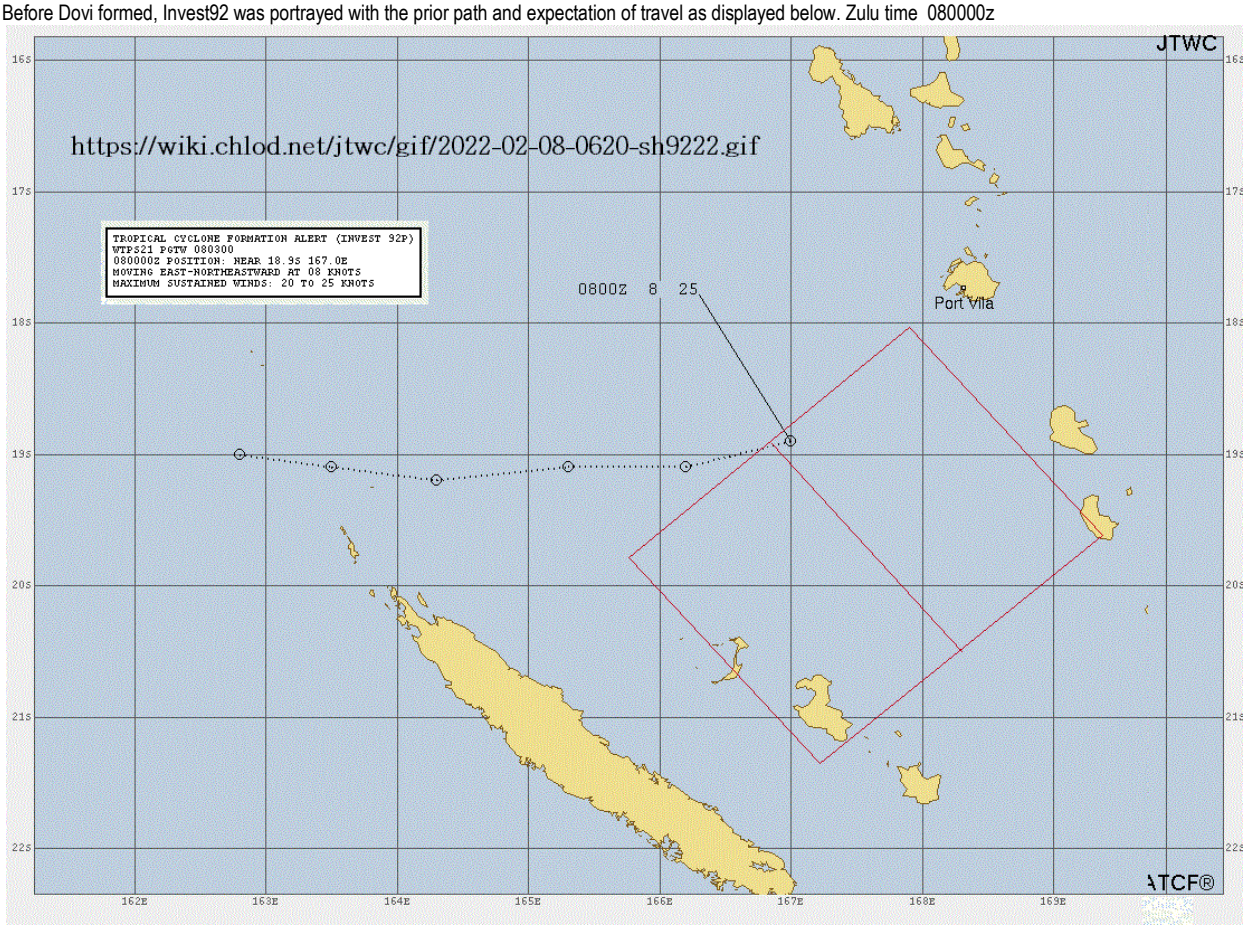
Dovi's initial path prediction was very (unusually) close to the realized path, even though the storm travelled at faster rate than predicted.

Was there ever a cyclone that so almost perfectly tracked on 180 degrees true for so long? Straight longitudinal tracks are not a common natural feature of circular storms traveling over a spinning globe.

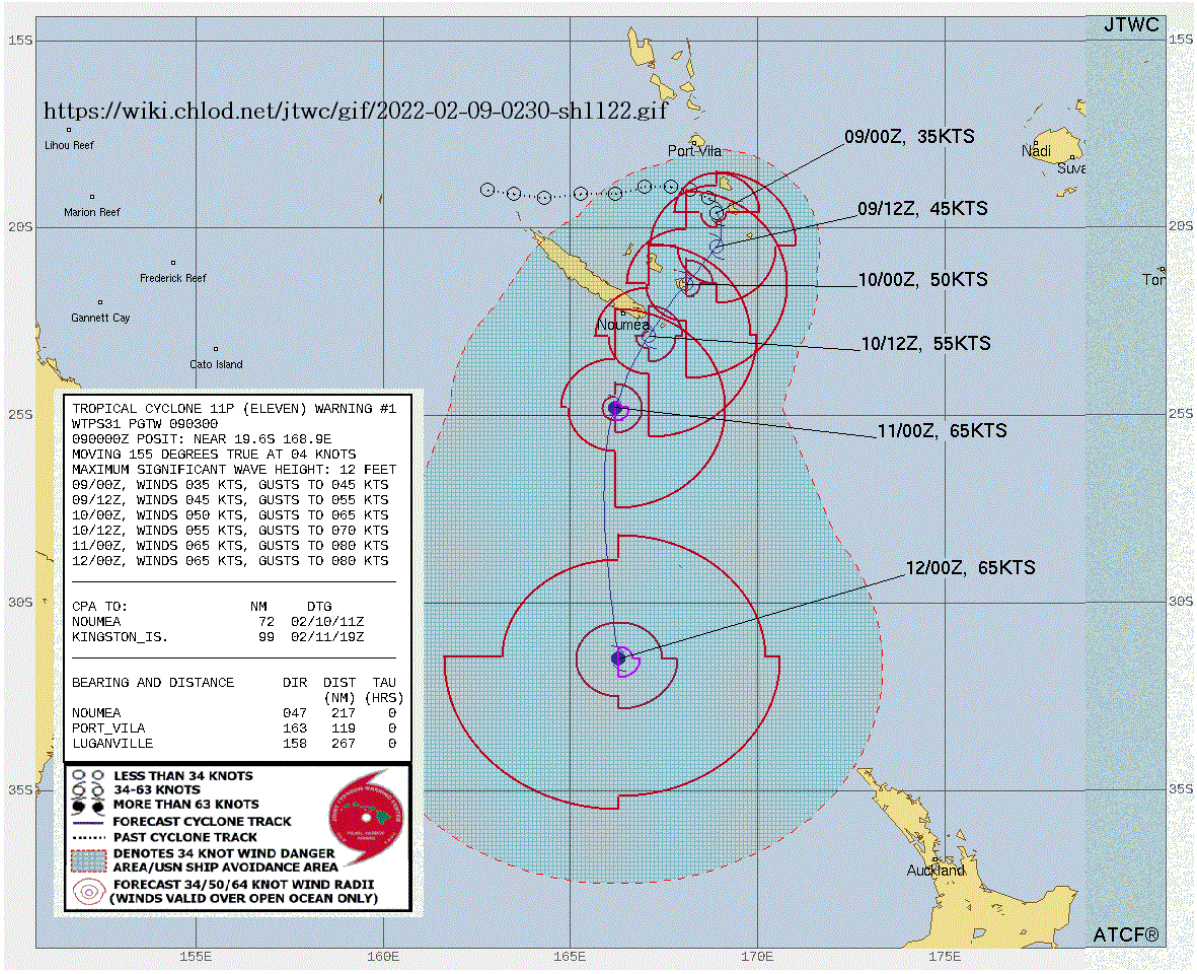


Steering and prognostic reasoning

Before Dovi formed, Invest92 was portrayed with the prior path and expectation of travel as displayed below. Zulu time 080000z



However the next graphical map produced at 090300z had a full path for Cyclone Dovi predicted or planned, tracking south down thru the Tasman sea.



WDPS31 PGTW 090300 **(Feb 9th 4pm NZDT)** MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI// SUBJ/PROGNOSTIC REASONING FOR TROPICAL CYCLONE 11P (ELEVEN) WARNING NR 001//
CURRENT STEERING MECHANISM: SUBTROPICAL RIDGE (STR) TO THE SOUTHEAST.
FORECAST REASONING.

SIGNIFICANT FORECAST CHANGES: THIS INITIAL PROGNOSTIC REASONING MESSAGE ESTABLISHES THE FORECAST PHILOSOPHY.

FORECAST DISCUSSION: TC 11P IS FORECAST TO TURN SOUTHWARD OVER THE NEXT 12 HOURS FOLLOWED BY A SOUTHWESTWARD TRACK BY TAU 24 AS THE SUBTROPICAL RIDGE TO THE SOUTHEAST BEGINS TO REORIENT. THE SYSTEM WILL CONTINUE SOUTHWESTWARD, PASSING OVER THE SOUTHERN TIP OF GRANDE TERRE, NEW CALEDONIA AROUND TAU 36. AFTER TAU 48, IT WILL BEGIN TO ACCELERATE SOUTHWARD DUE TO A PASSING SHORT-WAVE TROUGH AND BECOME SUBTROPICAL BY TAU 72. TC 11P IS CURRENTLY IN A MARGINALLY FAVORABLE ENVIRONMENT DUE TO 15-25 KTS OF VERTICAL WIND SHEAR AND WEAK OUTFLOW ALOFT. THIS WILL LIMIT THE SYSTEM TO MODERATE INTENSIFICATION IN THE EARLY PORTION OF THE FORECAST, REACHING 55 KTS BY TAU 36. THE UPPER-LEVEL ENVIRONMENT IS EXPECTED TO IMPROVE AFTERWARDS ALLOWING FOR AN INTENSITY OF 65 KTS AROUND TAU 48. BY TAU 60, TC 11P WILL BEGIN EXPERIENCING COOLING SEA SURFACE TEMPERATURES WHICH WILL LIMIT ANY FURTHER INTENSIFICATION.

MODEL DISCUSSION: NUMERICAL MODEL GUIDANCE IS IN GOOD AGREEMENT IN REGARDS TO TRACK FORECAST WITH ONLY A 150 NM CROSS-TRACK SPREAD AT TAU 72. THEREFORE, THE JTWC FORECAST TRACK IS PLACED CLOSE TO THE CONSENSUS. INTENSITY GUIDANCE IS ALSO IN GOOD AGREEMENT WITH ALL MODELS INDICATING MODERATE INTENSIFICATION UP TO TAU 60 FOLLOWED BY A WEAKENING TREND BEYOND TAU 72. THE JTWC FORECASTS 65 KTS AT TAU 48 AND TAU 72, BUT GFS INDICATES A PEAK INTENSITY OF 70 KTS COULD HAPPEN AT TAU 60.
FORECAST CONFIDENCE:
TRACK 0 - 72 HR: MEDIUM
TRACK 72-120 HR: LOW
INTENSITY 0 - 72 HR: MEDIUM
INTENSITY 72-120 HR: LOW//

WDPS31 PGTW 090900 **(Feb 9th 10pm NZDT)** MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI//SUBJ/PROGNOSTIC REASONING FOR TROPICAL CYCLONE 11P (ELEVEN) WARNING NR 002//
CURRENT STEERING MECHANISM: SUBTROPICAL RIDGE (STR) TO THESOUTHEAST.
FORECAST REASONING.

SIGNIFICANT FORECAST CHANGES: THERE ARE NO SIGNIFICANT CHANGES TO THE FORECAST FROM THE PREVIOUS WARNING.

FORECAST DISCUSSION: TC 11P WILL TRACK SOUTH-SOUTHWESTWARD THEN AFTER TAU 48, SOUTHWARD UNDER THE STEERING INFLUENCE OF THE STR. THE MARGINALLY FAVORABLE ENVIRONMENT WILL FUEL STEADY INTENSIFICATION TO A PEAK OF 65KTS BY TAU 48. AFTERWARD, COOLING SST AND INCREASING VWS WILL WEAKEN THE SYSTEM DOWN TO 60KTS BY TAU 72. CONCURRENTLY AT TAU 48, THE CYCLONE WILL BEGIN SUBTROPICAL TRANSITION AND BY TAU 72, WILL BECOME SUBTROPICAL WITH AN EXPANDING WIND FIELD.

MODEL DISCUSSION: NUMERICAL MODELS ARE IN TIGHT AGREEMENT WITH GRADUAL AND EVEN SPREADING TO A MERE 138NM AT TAU 72. HOWEVER GIVEN THE UNCERTAINTY IN THE INITIAL STORM MOTION, THERE IS ONLY MEDIUM CONFIDENCE IN THE JTWC TRACK FORECAST THAT IS LAID CLOSE TO THE MODEL CONSENSUS.
FORECAST CONFIDENCE:
TRACK 0 - 72 HR: MEDIUM
INTENSITY 0 - 72 HR: MEDIUM//

WDPS31 PGTW 091500 **(Feb 10th 4am NZDT)** MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI// SUBJ/PROGNOSTIC REASONING FOR TROPICAL CYCLONE 11P (DOVI) WARNING NR 003//
CURRENT STEERING MECHANISM: COL BETWEEN NEAR EQUATORIAL RIDGE (NER) TO THE NORTH AND THE SUBTROPICAL RIDGE (STR) TO THE SOUTHEAST.
FORECAST REASONING.

SIGNIFICANT FORECAST CHANGES: THERE ARE NO SIGNIFICANT CHANGES TO THE FORECAST FROM THE PREVIOUS WARNING.

FORECAST DISCUSSION: THE STR TO THE SOUTHEAST WILL ASSUME STEERING AND DRIVE TC 11P SOUTH-SOUTHWESTWARD THEN SOUTHWARD AFTER TAU 36. THE MARGINALLY FAVORABLE ENVIRONMENT WILL FUEL STEADY INTENSIFICATION TO A PEAK OF 65KTS BY TAU 48. AFTERWARD, COOLING SST AND INCREASING VWS WILL WEAKEN THE SYSTEM DOWN TO 60KTS BY TAU 72. CONCURRENTLY BY TAU 48, THE CYCLONE WILL BEGIN SUBTROPICAL TRANSITION AND BY TAU 72, WILL BECOME A STRONG STORM-FORCE SUBTROPICAL CYCLONE WITH AN EXPANDING WIND FIELD.

MODEL DISCUSSION: NUMERICAL MODELS REMAIN IN TIGHT AGREEMENT WITH GRADUAL AND EVEN SPREADING TO A MERE 175NM AT TAU 72. HOWEVER GIVEN THE UNCERTAINTY IN THE INITIAL STORM MOTION, THERE IS ONLY MEDIUM CONFIDENCE IN THE JTWC TRACK FORECAST THAT IS LAID CLOSE TO THE MODEL CONSENSUS.
FORECAST CONFIDENCE:
TRACK 0 - 72 HR: MEDIUM
INTENSITY 0 - 72 HR: MEDIUM//

WDPS31 PGTW 092100 **(Feb 10th 10am NZDT)** MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI// SUBJ/PROGNOSTIC REASONING FOR TROPICAL CYCLONE 11P (DOVI) WARNING NR 004//

THE SYSTEM HAS NOW BEGUN A **SOUTHWESTWARD JOG** AS THE SUBTROPICAL RIDGE (STR) TO THE EAST HAS BECOME THE DOMINANT STEERING MECHANISM.
CURRENT STEERING MECHANISM: NORTHWESTERN PERIPHERY OF A DEEP-LAYER SUBTROPICAL RIDGE (STR) TO THE SOUTHEAST.
FORECAST REASONING.

SIGNIFICANT FORECAST CHANGES: THERE ARE NO SIGNIFICANT CHANGES IN THE FORECAST TRACK OR INTENSITY, HOWEVER THE TRANSITION TYPE IS CHANGED FROM SUBTROPICAL TO EXTRATROPICAL.

FORECAST DISCUSSION: NOW THAT THE STR HAS ASSUMED THE PRIMARY STEERING ROLE, TC 11P HAS STARTED A TURN TO THE SOUTHWEST BASED ON ANIMATED RADAR DATA. THE SYSTEM IS FORECAST TO CONTINUE TRACKING SOUTHWESTWARD THROUGH THE FIRST 24 HOURS OF THE FORECAST, CROSSING OVER OR VERY NEAR THE SOUTHEASTERN TIP OF NEW CALEDONIA BEFORE TAU 24. AFTER PASSING THE ISLANDS THE SYSTEM WILL GRADUALLY TURN MORE SOUTHWARD AS IT ROUNDS THE RIDGE AXIS, AND EVENTUALLY TURN SOUTHEASTWARD TOWARDS NEW ZEALAND AFTER TAU 72. AS THE WEDGE OF DRY AIR THAT WAS PREVIOUSLY ANALYZED TO BE WRAPPING INTO THE CENTER HAS WEAKENED AND MOISTENED, THE SYSTEM HAS STEADILY BEGUN TO ORGANIZE. THIS TREND IS ANTICIPATED TO CONTINUE AND ACCELERATE AS THE SHEAR IS FORECAST TO GENERALLY SLACKEN OVER THE NEXT 12 HOURS OR SO. SSTS REMAIN AT OR ABOVE 26C FOR THE NEXT 36 HOURS, AND THUS THE SYSTEM IS FORECAST TO STEADILY INTENSITY TO A PEAK OF 70 KNOTS BY TAU 36. BAY TAU 48 THE SYSTEM WILL MOVE ACROSS A SHARP SST GRADIENT TO WATERS LESS THAN 23C AND BEGIN TO INTERACT WITH AN APPROACHING MAJOR SHORTWAVE TROUGH, MARKING THE BEGINNING OF EXTRATROPICAL TRANSITION. BY TAU 72, THE SYSTEM TRANSITIONS TO A STORM-FORCE EXTRATROPICAL LOW AS IT WILL BE IN PHASE AND JUST AHEAD OF THE UPPER-LEVEL TROUGH, MOVES UNDER A 200MB POLAR FRONT JET STREAK AND DEVELOPS BAROCLINICITY.

MODEL DISCUSSION: TRACK GUIDANCE IS IN GOOD AGREEMENT THROUGH THE FORECAST PERIOD, WITH AN 80NM SPREAD AT TAU 48, INCREASING TO 150NM AT TAU 72, THOUGH THERE IS A MODEST AMOUNT OF ALONG-TRACK SPREAD EVIDENT IN THE GUIDANCE AFTER TAU 48. THE JTWC TRACK HAS SHIFTED A BIT TO THE WEST, OR RIGHT WHEN LOOKING DOWN TRACK, BASED ON THE RECENT NEAR-TERM MOTION VECTOR. THE FORECAST REMAINS ON THE WEST SIDE OF THE ENVELOPE THROUGH TAU 48, THEN MOVES CLOSER TO THE CONSENSUS MEAN BY TAU 72, WITH HIGH CONFIDENCE. INTENSITY GUIDANCE IS MIXED, WITH THE HWRF MARKING THE LOW END OF THE ENVELOPE, PEAKING AT AROUND 55 KNOTS, WHILE THE DECAY SHIPS ARE THE MOST BULLISH, PEAKING NEAR 75 KNOTS. THE JTWC FORECAST LIES ON THE HIGH END OF THE ENVELOPE, ROUGHLY 10 KNOTS HIGHER THAN THE CONSENSUS MEAN, THROUGH TAU 36 THEN SLIGHTLY BELOW THE MEAN THEREAFTER. CONFIDENCE IN THE INTENSITY FORECAST IS MEDIUM DUE TO THE LARGE UNCERTAINTIES IN THE GUIDANCE.
FORECAST CONFIDENCE:
TRACK 0 - 72 HR: **HIGH**
INTENSITY 0 - 72 HR: MEDIUM//

WDPS31 PGTW 100900 **(Feb 10th 10pm NZDT)** MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI//SUBJ/PROGNOSTIC REASONING FOR TROPICAL CYCLONE 11P (DOVI) WARNING NR 006//
SUMMARY:
INITIAL POSITION: 22.2S 167.9E
INITIAL INTENSITY: 60 KTS
GEOGRAPHIC REFERENCE: 100 NM EAST OF NOUMEA, NEW CALEDONIA
MOVEMENT PAST 6 HOURS: SOUTHWESTWARD AT 12 KTS
SIGNIFICANT WAVE HEIGHT: 21 FEET
CURRENT STEERING MECHANISM: NORTHWEST PERIPHERY OF A DEEP-LAYERED SUBTROPICAL RIDGE (STR) CENTERED TO THE SOUTHEAST.

FORECAST DISCUSSION: TC 11P (DOVI) IS FORECAST TO TRACK SOUTH-SOUTHWESTWARD UNDER THE STEERING INFLUENCE OF THE SUBTROPICAL RIDGE (STR). BY TAU 12, THE SYSTEM IS FORECAST TO INCREASE IN INTENSITY AS IT CLEARS THE ISLANDS OF NEW CALEDONIA WITHIN A FAVORABLE ENVIRONMENT. WARM SEA SURFACE TEMPERATURES (SST) (28-29C), LOW VERTICAL WIND SHEAR (VWS) (5-10KTS), AND RADIAL OUTFLOW WILL ALLOW TC 11P TO PEAK AT 85 KNOTS BETWEEN TAU 12 AND TAU 24. AFTER TAU 24, VWS WILL INCREASE GRADUALLY AND SST VALUES WILL COOL TO 25-26C, WHICH WILL LEAD TO STEADY WEAKENING. AFTER TAU 36, EXTRATROPICAL TRANSITION (ETT) WILL COMMENCE AS TC 11P BEGINS TO INTERACT WITH AN EASTWARD PROPAGATING MIDLATITUDE UPPER-LEVEL TROUGH AND STRONG BAROCLINIC ZONE. BY TAU 48, TC 11P WILL WEAKEN SIGNIFICANTLY AS VWS INCREASES (35 TO 40 KNOTS) AND SST VALUES COOL TO 22C. NEAR TAU 60, THE SYSTEM WILL COMPLETE ETT AS IT BECOMES EMBEDDED IN THE BAROCLINIC ZONE NEAR THE JET AND WILL GAIN CLEAR FRONTAL CHARACTERISTICS.

MODEL DISCUSSION: WITH THE EXCEPTION OF NAVGEM, NUMERICAL MODEL GUIDANCE REMAINS IN TIGHT AGREEMENT THROUGH TAU 72 WITH A 58NM SPREAD IN SOLUTIONS AT TAU 48. THE 100000Z ECMWF ENSEMBLE (EPS) STRIKE PROBABILITY OUTPUT SUPPORTS THE JTWC TRACK PHILOSOPHY WITH A HIGH PROBABILITY OF LANDFALL OCCURRING ALONG THE WESTERN COAST OF NORTH ISLAND, NEW ZEALAND. THE BULK OF THE INTENSITY GUIDANCE INDICATES EITHER A SLIGHT WEAKENING OR SLIGHT INTENSIFICATION TREND OVER THE NEXT 24 HOURS, HOWEVER, DECAY SHIPS (GFS) AND COAMPS-TC (GFS) REVEAL A STEEPER INTENSIFICATION TREND WITH A PEAK OF 68-79 KNOTS. CONSIDERING THE SHARP INCREASE IN ADT AND AIDT ESTIMATES AS WELL AS THE DEVELOPMENT OF THE RAGGED EYE, THE JTWC INTENSITY FORECAST WITHIN THE NEXT 24 HOURS IS PLACED ABOVE THE INTENSITY GUIDANCE. ADDITIONALLY, THERE IS UNCERTAINTY IN THE PEAK INTENSITY WITH A HIGHER PEAK INTENSITY POSSIBLE.
FORECAST CONFIDENCE:
TRACK 0 - 72 HR: **HIGH**
INTENSITY 0 - 72 HR: MEDIUM//

WDPS31 PGTW 101500 **(Feb 11th 4am NZDT)** MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI//SUBJ/PROGNOSTIC REASONING FOR TROPICAL CYCLONE 11P (DOVI) WARNING NR 007//
SUMMARY:
INITIAL POSITION: 23.0S 166.9E
INITIAL INTENSITY: 75 KTS
GEOGRAPHIC REFERENCE: 70 NM SOUTHEAST OF NOUMEA, NEW CALEDONIA
MOVEMENT PAST 6 HOURS: **SOUTHWESTWARD AT 12 KTS**
SIGNIFICANT WAVE HEIGHT: 24 FEET
CURRENT STEERING MECHANISM: NORTHWEST PERIPHERY OF A DEEP-LAYERED SUBTROPICAL RIDGE (STR) CENTERED TO THE SOUTHEAST.

FORECAST REASONING. SIGNIFICANT FORECAST CHANGES: THERE ARE NO SIGNIFICANT CHANGES TO THE FORECAST FROM THE PREVIOUS WARNING.

FORECAST DISCUSSION: TC 11P (DOVI) IS FORECAST TO TRACK SOUTH-SOUTHWESTWARD UNDER THE STEERING INFLUENCE OF THE STR. NO LONGER HINDERED BY LAND, TC 11P HAS RAPIDLY INTENSIFIED AND IS FORECAST TO CONTINUE TO RAPIDLY INTENSIFY AS ITS EYE WALL CONSOLIDATES WITHIN A FAVORABLE ENVIRONMENT. WARM SEA SURFACE TEMPERATURES (SST) (27-28C), LOW VERTICAL WIND SHEAR (VWS) (5-10KTS), AND RADIAL OUTFLOW WILL ALLOW TC 11P TO REACH A PEAK INTENSITY OF 95 KNOTS BY TAU 12. AFTER TAU 12, MID-LEVEL VWS WILL INCREASE GRADUALLY AND SST VALUES WILL COOL TO 25-26C, WHICH WILL LEAD TO STEADY WEAKENING. AFTER TAU 24, EXTRATROPICAL TRANSITION (ETT) WILL COMMENCE AS TC 11P BEGINS TO INTERACT WITH AN EASTWARD PROPAGATING MIDLATITUDE UPPER-LEVEL TROUGH AND STRONG BAROCLINIC ZONE. BY TAU 36, TC 11P WILL WEAKEN SIGNIFICANTLY AS VWS INCREASES (35 TO 40 KNOTS) AND SST VALUES COOL TO 23C. NEAR TAU 48, THE SYSTEM WILL COMPLETE ETT AS IT BECOMES EMBEDDED IN THE BAROCLINIC ZONE NEAR THE JET AND WILL GAIN CLEAR FRONTAL CHARACTERISTICS.

MODEL DISCUSSION: NUMERICAL MODEL GUIDANCE REMAINS IN TIGHT AGREEMENT THROUGH TAU 48 WITH A 58NM SPREAD IN SOLUTIONS. THE 100600Z ECMWF ENSEMBLE (EPS) STRIKE PROBABILITY OUTPUT SUPPORTS THE JTWC TRACK PHILOSOPHY WITH A HIGH PROBABILITY OF LANDFALL OCCURRING ALONG THE WESTERN COAST OF NORTH ISLAND, NEW ZEALAND. INTENSITY GUIDANCE FOR TC 11P IS SPLIT INDICATING EITHER A WEAKENING TREND OVER THE NEXT 24 HOURS, OR RAPID INTENSIFICATION (RI) AS EVIDENCED BY THE TRIGGERING OF THE RAPID INTENSIFICATION PREDICTION AID (RIPA). DECAY SHIPS (GFS) INDICATES A PEAK OF 92 KNOTS AT TAU 24 BEFORE WEAKENING. CONSIDERING THE RI TREND, TRIGGERING OF RIPA AND PGTW 101430Z DVORAK ESTIMATE OF T5.0 (90 KNOTS), THE JTWC INTENSITY FORECAST IS PLACED HIGHER THAN THE INTENSITY GUIDANCE WITH A PEAK OF 95 KNOTS AT TAU 12. THERE IS STILL UNCERTAINTY IN THE EXACT PEAK INTENSITY AND TIMING, WITH A HIGHER PEAK INTENSITY POSSIBLE.
FORECAST CONFIDENCE:
TRACK 0 - 72 HR: HIGH
INTENSITY 0 - 72 HR: MEDIUM//

WDPS31 PGTW 110900 **(Feb 11th 10pm NZDT)** MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI//SUBJ/PROGNOSTIC REASONING FOR TROPICAL CYCLONE 11P (DOVI) WARNING NR 010//
SUMMARY: INITIAL POSITION: 26.8S 166.2E INITIAL INTENSITY: 75 KTS GEOGRAPHIC REFERENCE: 963 NM NORTH-NORTHWEST OF WELLINGTON, NEW ZEALAND **MOVEMENT PAST 6 HOURS: SOUTHWARD AT 16 KTS** SIGNIFICANT WAVE HEIGHT: 26 FEET
CURRENT STEERING MECHANISM: WESTERN PERIPHERY OF A DEEP-LAYERED SUBTROPICAL RIDGE (STR) TO THE EAST.

FORECAST REASONING. SIGNIFICANT FORECAST CHANGES: THERE ARE NO SIGNIFICANT CHANGES TO THE FORECAST FROM THE PREVIOUS WARNING.

FORECAST DISCUSSION: TC 11P (DOVI) IS FORECAST TO RAPIDLY DETERIORATE FROM A WARM CORE TROPICAL CYCLONE TO A COLD CORE EXTRATROPICAL LOW BY TAU 36. **OVER THE NEXT TWELVE HOURS, TC 11P WILL TRACK SOUTHWARD**, FURTHER INTERACTING WITH AN EASTWARD PROPAGATING MIDLATITUDE UPPER-LEVEL TROUGH AND STRONG BAROCLINIC ZONE. MARGINAL SEA SURFACE TEMPERATURES (SST) (24-26C) AND MODERATE VERTICAL WIND SHEAR (VWS) (15-20KTS) WILL BE OFFSET BY INCREASING POLEWARD OUTFLOW AND CONTINUES TO DECREASE IN INTENSITY. AFTER TAU 12, TC 11P WILL RECURVE SOUTH-SOUTHEASTWARD TO SOUTHEASTWARD AND ENCOUNTER STRONG VWS (30-40KTS) AND COOLER SST VALUES (21-23C). BY TAU 36, THE SYSTEM WILL COMPLETE ETT AS IT BECOMES EMBEDDED IN THE BAROCLINIC ZONE NEAR THE JET AND WILL GAIN CLEAR FRONTAL CHARACTERISTICS. AFTER COMPLETING ETT, THE SYSTEM IS EXPECTED TO REMAIN A STORM-FORCE LOW AS IT TRACKS OVER NORTH ISLAND, NEW ZEALAND.

MODEL DISCUSSION: NUMERICAL MODEL GUIDANCE REMAINS IN GOOD AGREEMENT THROUGH TAU 36 WITH A 90NM SPREAD IN SOLUTIONS AT TAU 36 **LENDING HIGH CONFIDENCE TO THE JTWC TRACK FORECAST**. THE 110000Z ECMWF ENSEMBLE (EPS) STRIKE PROBABILITY OUTPUT SUPPORTS THE JTWC TRACK PHILOSOPHY WITH **A HIGH PROBABILITY OF LANDFALL OCCURRING JUST SOUTH OF AUCKLAND.** JTWC INTENSITY GUIDANCE IS IN GOOD AGREEMENT ON THE STEADY WEAKENING TREND AND BOLSTERS THE JTWC INTENSITY FORECAST WITH MEDIUM CONFIDENCE.
FORECAST CONFIDENCE: **TRACK 0 - 72 HR: HIGH** INTENSITY 0 - 72 HR: MEDIUM//

WDPS31 PGTW 111500 **(Feb 12th 4am NZDT)** MSGID/GENADMIN/JOINT TYPHOON WRNCEN PEARL HARBOR HI//SUBJ/PROGNOSTIC REASONING FOR TROPICAL CYCLONE 11P (DOVI) WARNING NR 011//

SUMMARY: INITIAL POSITION: 28.9S 166.0E INITIAL INTENSITY: 70 KTS GEOGRAPHIC REFERENCE: 648 NM NORTHWEST OF AUCKLAND, NEW ZEALAND **MOVEMENT PAST 6 HOURS: SOUTHWARD AT 21 KTS** SIGNIFICANT WAVE HEIGHT: 26 FEET

SATELLITE ANALYSIS, INITIAL POSITION AND INTENSITY DISCUSSION: TC 11P (DOVI) IS UNDERGOING EXTRATROPICAL TRANSITION (ETT) AS IT ACCELERATES SOUTHWARD AND, AS INDICATED IN ANIMATED WATER VAPOR IMAGERY AND UW-CIMSS MID-UPPER LEVEL FEATURE TRACK WINDS, IS EMBEDDED WITHIN AN EXTENSIVE REGION OF ENHANCED, ROBUST POLEWARD OUTFLOW ALONG THE EASTERN PERIPHERY OF A DEEP UPPER-LEVEL TROUGH. ANIMATED ENHANCED INFRARED (EIR) SATELLITE IMAGERY DEPICTS A RAPIDLY DETERIORATING SYSTEM WITH ERODING DEEP CONVECTION OVER THE SOUTHERN SEMICIRCLE DUE TO DRY AIR ENTRAINMENT AND HIGHLY ASYMMETRIC CONVECTIVE STRUCTURE. DESPITE THE LOSS OF THE RAGGED EYE IN EIR, **THE INITIAL POSITION IS PLACED WITH HIGH CONFIDENCE BASED ON A FORTUITOUS 111122Z ASCAT-B IMAGE WHICH SHOWS A WELL-DEFINED CIRCULATION CENTER.** THE SYSTEM IS CURRENTLY LOCATED 100NM WEST OF NORFOLK ISLAND (94996), WHICH IS REPORTING NORTHEASTERLY WINDS AT 27 KNOTS AND SLP NEAR 992.4MB. THE INITIAL INTENSITY OF 70 KTS IS ASSESSED WITH MEDIUM CONFIDENCE BASED ON A BLEND OF FINAL-T ESTIMATES (T4.0, 65 KNOTS) AND THE DVORAK CURRENT INTENSITY ESTIMATES (4.5 TO 5.0). THE 111122Z ASCAT-B IMAGE SHOWS A SMALL SWATH OF 60-65 KNOT WINDS IN THE SOUTHEASTERN QUADRANT.

CURRENT STEERING MECHANISM: WESTERN PERIPHERY OF A DEEP-LAYERED SUBTROPICAL RIDGE (STR) TO THE EAST.

FORECAST REASONING. SIGNIFICANT FORECAST CHANGES: THERE ARE NO SIGNIFICANT CHANGES TO THE FORECAST FROM THE PREVIOUS WARNING.

FORECAST DISCUSSION: TC 11P (DOVI) IS FORECAST TO CONTINUE ITS RAPID DECLINE FROM A WARM CORE TROPICAL CYCLONE TO A COLD CORE EXTRATROPICAL LOW BY TAU 24. OVER THE NEXT TWELVE HOURS, TC 11P WILL BEGIN TO RECURVE SOUTH-SOUTHEASTWARD AS ITS INTERACTION WITH THE UPPER LEVEL MIDLATITUDE TROUGH INCREASES AND DEEP CONVECTION SHEARS POLEWARD AND DECOUPLES FROM THE LLCC. MARGINAL SEA SURFACE TEMPERATURES (SST) (23-25C) AND MODERATE-HIGH VERTICAL WIND SHEAR (VWS) WILL BE PARTIALLY OFFSET BY VIGOROUS POLEWARD OUTFLOW AS THE SYSTEM CONTINUES TO DECREASE IN INTENSITY. A SIGNIFICANT AMOUNT OF DRY AIR WILL CONTINUE TO ENTRAIN THROUGHOUT ALL LEVELS OF THE SYSTEM FURTHER DETERIORATING ITS TROPICAL CHARACTERISTICS. AFTER TAU 12, TC 11P WILL RECURVE SOUTHEASTWARD AS IT ENCOUNTERS STRONGER VWS (35-40KTS) AND LOWER SST VALUES (21-23C). BY TAU 24, THE SYSTEM WILL COMPLETE ETT AS IT BECOMES EMBEDDED IN THE BAROCLINIC ZONE NEAR THE JET AND WILL GAIN CLEAR FRONTAL CHARACTERISTICS. AFTER COMPLETING ETT, THE SYSTEM IS EXPECTED TO REMAIN A STORM-FORCE LOW AS IT TRACKS OVER NORTH ISLAND, NEW ZEALAND.

MODEL DISCUSSION: NUMERICAL MODEL GUIDANCE REMAINS IN TIGHT AGREEMENT WITH A 56NM SPREAD IN SOLUTIONS AT TAU 24 LENDING HIGH CONFIDENCE TO THE JTWC TRACK FORECAST. THE 110600Z ECMWF ENSEMBLE (EPS) STRIKE PROBABILITY OUTPUT SUPPORTS THE JTWC TRACK PHILOSOPHY WITH A HIGH PROBABILITY OF LANDFALL OCCURRING JUST SOUTH OF AUCKLAND. JTWC INTENSITY GUIDANCE IS IN AGREEMENT ON THE STEADY WEAKENING TREND AND BOLSTERS THE JTWC INTENSITY FORECAST WITH MEDIUM CONFIDENCE.

FORECAST CONFIDENCE:

TRACK 0 - 72 HR: HIGH

INTENSITY 0 - 72 HR: MEDIUM//

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Appendix VII

Some other interesting weather events
Weaponised weather or “Act of God”?

1947

Project Cirrus. This took place on October 13, 1947, when U.S. scientists seeded a hurricane off the east coast of Florida with crushed dry ice in hopes of altering its path or intensity. The hurricane—initially moving out to sea—unexpectedly changed course after the seeding and made landfall near Savannah, Georgia. At the time, the public blamed the experiment for the sudden shift. The storm seeded in this experiment is commonly referred to as the 1947 Cape Sable hurricane, also known as Hurricane King by the Air Force Hurricane Office.

1952

The Lynmouth Flood and “Project Cumulus” a military weather modification program. On the night of 15–16 August 1952, Lynmouth and its surrounding area were struck by an intense storm that dropped approximately about 9 inches of rain within 24 hours, most of it falling in a few hours, onto already saturated ground [1][2][3]. This unprecedented rainfall caused a surge in the rivers East and West Lyn, leading to a massive flash flood that swept through the village. The floodwaters, carrying debris, boulders, and trees, destroyed or seriously damaged over 100 buildings, washed away 28 out of 31 bridges, and killed 34 people [1][5][6]. Around 90 million tons of water descended through the steep valleys onto Lynmouth, making it one of the worst river floods in English history [2][5]. Key supporting details: - The catchment area was relatively small (39 square miles) but the volume of rain was immense, described as only being exceeded twice by the much larger River Thames since 1883[2]. - Flood debris formed temporary dams in the rivers, which broke and sent waves of water and rubble crashing into the town [1][3]. - The event left over 400 people homeless and completely reshaped the landscape and infrastructure of Lynmouth[1][3]. In summary, the event was remarkable both for the extreme amount of rainfall in a very short time and the devastating impacts on the village and its inhabitants[2][5].

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The US government was actively pursuing weather modification for many years

https://en.wikipedia.org/wiki/Project_Stormfury

1963

Hurricane Flora was one of the deadliest and most devastating Atlantic hurricanes on record. The forecast was map was very different to the final track.

Flora struck Cuba in 1963, was an extraordinarily destructive disaster, producing record rainfall of about 2,550 mm (100.4 inches) and lingering over the island for approximately four days. This slow movement caused sustained hurricane-force winds for over 100 hours and resulted in severe devastation, including around 30,000 homes destroyed and approximately 1,750 fatalities in Cuba alone. Flora's unprecedented combination of intensity, duration, and destruction places it uniquely in Cuba's hurricane history.

This catastrophic event occurred during a highly charged geopolitical period. Cuba had become a close Cold War adversary of the United States following the 1959 Cuban Revolution and alignment with the Soviet Union. Hostilities had already manifested in the failed 1961 Bay of Pigs invasion and escalated tensions with the 1962 Cuban Missile Crisis. Cuba's proximity—just 90 miles from the U.S.—amplified the storm's strategic significance within this context.

At the same time, groundbreaking scientific developments were unfolding in the U.S. Edward Lorenz's work on deterministic nonperiodic flow introduced chaos theory and the Lorenz attractor, revealing the atmosphere's sensitive dependence on initial conditions—an insight that explained the inherent limits of weather predictability. Concurrently, figures such as John von Neumann and other theorists had proposed the possibility of influencing weather by leveraging small, strategic interventions rather than massive energy inputs. Von Neumann envisioned modifying parameters to control climate and weather, motivated partly by military strategic considerations amid Cold War tensions.

The U.S. military's interest in weather modification was real and active during this period. From the late 1940s onwards, they pursued programs in cloud seeding and weather control as potential military tools. Projects like Project Cirrus and later Project Stormfury explored manipulating storms, later covert operations such as Operation Popeye during the Vietnam War demonstrated a willingness to use weather modification tactically. Due to ethical, political, and strategic sensitivities, these military initiatives were highly secretive, with public knowledge deliberately limited.

Given this secrecy, the knowledge and desire to manipulate weather existed in the U.S. well before Hurricane Flora. Cuba's role as a nearby Cold War adversary—combined with the emerging understanding of chaotic atmospheric dynamics, and covert military ambitions to use weather as a weapon—frames Flora's timing and impact in a uniquely complex geopolitical light. Although there is no publicly available evidence proving that Flora's track or intensity was manipulated, the confluence of these factors fuels speculation on its extraordinary destruction coinciding with American capabilities and motives for weather control.

In summary, Hurricane Flora was a uniquely catastrophic natural event that struck Cuba at a politically and scientifically significant moment—when chaos theory and weather modification ambitions were rising within the U.S., and when Cuba represented a focal Cold War adversary. The military's secretive approach to weather manipulation during the Cold War means that while Flora is documented as a natural phenomenon, the broader context invites reflection on the interplay of natural disaster, scientific discovery, and geopolitical strategy.

Flora had satellite-based weather observations via the TIROS satellite. The images are historically significant as they provided some of the first of a tropical cyclone, enabling better tracking and analysis of storms.

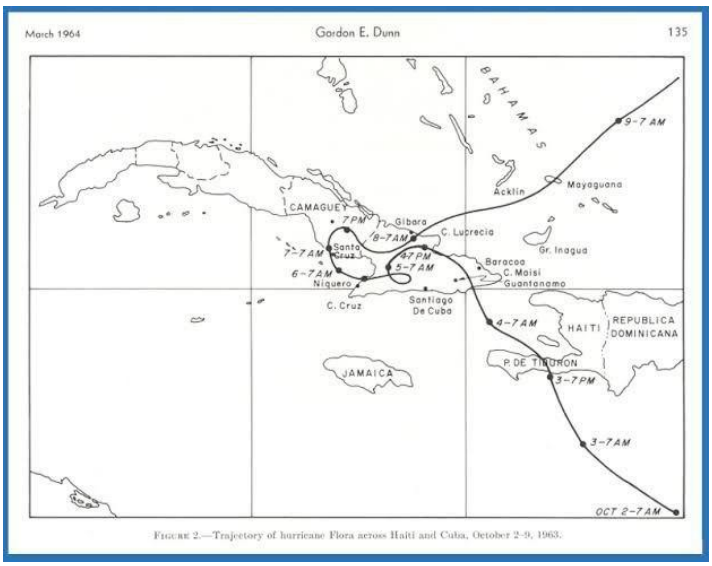

FIGURE 2.—Trajectory of hurricane Flora across Haiti and Cuba, October 2-9, 1963.

As the hurricane tracked northeastward over the Bahamas, one of the RFF planes flew a last research mission to find the hurricane was regaining some strength with its maximum sustained winds reaching 110 mph (175 km/hr). Finally caught up in the midlatitude westerlies, Flora raced out to sea, regaining Category-4-force winds as it passed east of Bermuda. It eventually became extratropical by Oct. 13th over the North Atlantic.

During its destructive path, Flora caused more than 7000 deaths and brought US$770 million in damages, primarily agricultural. Cuba's economy was devastated and Castro was force to raise food and tobacco prices. He accused the United States of withholding weather data about the storm from the Cuban weather service and demanded that the US withdraw its economic sanctions. But the sanctions remained in place and it took about four years for the island's economy to recover.

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2016

In Tasmania, cloud seeding has been implicated in the June 2016 floods, particularly over the Upper Derwent catchment, which supplies water to several hydroelectric dams. Hydro Tasmania, the state-owned energy company, conducted cloud seeding in the area just before severe flooding occurred, which resulted in significant public and governmental scrutiny, including calls for inquiry and a coronial inquest due to the loss of life. Official investigations, including a government-commissioned independent review, concluded that Hydro Tasmania's cloud seeding on 5 June 2016 did not affect precipitation and that the conditions on that date were not suitable for rainfall enhancement, however a court case did result in formal reviews, government inquiries and a coronial inquest considering the potential impact and appropriateness of the activity

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2020

Iran's Next-Door Neighbor Accused Of Stealing Rain Clouds As Severe Drought Sweeps Through The Country.

It all started with a few images that went viral on social media.
Over the past two months, photos have been circulating on platforms showing contrasting weather conditions in Turkey and Iran. While Turkey exhibits cloudy skies and snow-covered mountaintops, just across the border in Iran, there appears to be nothing but empty skies and dry mountains.
What seems to be a stark difference in rainfall and snowfall patterns between two neighboring countries has since raised questions among Iranians as to why.
One theory going around suggests that Turkey is somehow stealing Iran's clouds. "Cloud stealing" is a term referring to the belief or accusation that countries are using technology to manipulate weather patterns to divert rain clouds away from a specific area. This could be possible through a practice called cloud seeding, a weather-modification technique that involves introducing certain substances into clouds to enhance their ability to produce rain or snow.
However, there are ongoing debates about the effectiveness of this procedure, and experts have identified potential dangers that are associated with cloud seeding.

“The biggest adverse effect is generating suspicion that a neighboring country is either trying to steal their rain or perhaps wage surreptitious environmental warfare,” says James Fleming, an atmospheric scientist and historian of science at Colby College in Maine.
In addition, “clouds never stay where they are. They are ephemeral entities that form and dissipate in the dynamic environment,” adds Fleming.
So, even in the absence of foul play, there is no guarantee that the country doing the seeding would be the one that gets to enjoy the rain dropping from the clouds as they move around the sky.

Meanwhile, because of severe drought and decreasing precipitation in the Middle East, countries are exploring alternative methods to help them squeeze out as much water as possible from the clouds above.
Governments such as Iran, Turkey, Saudi Arabia and the United Arab Emirates have initiated weather-modification programs, opening doors for further accusations of environmental hostilities in a region already fraught with tensions.

Pirates Of The Atmosphere
It is not the first time the topic of cloud stealing has made headlines in the Islamic Republic Authorities have long been suspicious of friends and foes manipulating the weather to create drought and cause harm.

Back in 2018, a senior member of Iran’s armed forces accused Israel and another unnamed country later identified as the UAE of intervening in the country’s climate and stealing its clouds and snow.
A couple of years before that, Iranian President Mahmoud Ahmadinejad made similar comments alleging that “enemies” are somehow destroying and diverting Iran’s share of rain clouds as part of some nefarious agenda.
On both accounts, the claims were dismissed by Iran’s Meteorological Organization and other environmental bodies in the country.
Now, once again, speculations of cloud theft have resurfaced, with Turkey being the alleged culprit. Adding fuel to the fire of suspicion, Iran’s top environmental official told reporters last month that a team has been designated to investigate why “weather fronts” seem to be disappearing over northern parts of the country.
Iran’s Department of Environment did not respond to a request for comment.
This time around, a concern among experts is that because of the power of social media and visual manifestation of the allegations, there is a higher likelihood of the public falling prey to misinformation about the environment they live in.
“The images belong to one specific moment in time,” says Kaveh Madani, director of the United Nations University Institute for Water, Environment and Health. “They have been purposely or naively selected to promote a narrative that has no scientific basis,” he adds.
The difference in precipitation patterns between nations can be explained through several factors. Some get more rain than others depending on how many seas are nearby, what direction the wind blows and how close they are to high-altitude mountains.
In the meantime, as most parts of Iran experience severe drought, the scientific community is drawing attention toward the root causes of the country’s water crisis.
“It’s easy to distract the public with conspiracy theories and seductive stories for a while but the real problem won’t be solved this way,” says Madani.
“In the end, it’s the people of Iran who are the real victims of this game,” he adds.

Strapped For Rain
Like most countries, Iran has a water year, a time period for which total precipitation levels are measured.
It starts somewhere around mid-September and lasts for 12 months. According to Iran’s Meteorological Organization, the rainfall situation this winter has been unsatisfactory, showing a 62%decrease compared to the long-term average.
But Iran’s water woes are neither new nor a result of someone stealing its clouds. Just last summer, many provinces across the country ran out of water, with people having to stand in lines to get drinking water from tanks stationed on the streets.
In 2021, water shortages got so bad in southwest and central Iran that they led to nationwide protests with security agents using deadly force to disperse thirsty crowds demanding the revival of lakes and rivers that had dried up.
Fast-forwarding to now, “unfortunately, Iran’s precipitation records from the beginning of the year are extremely worrisome and indicate a widespread and serious drought,” says Madani, also a former deputy head of Iran’s Department of Environment who resigned from his post in 2018 and left the country, facing accusations of spying for the West.
Obviously, “a country that is water bankrupt is naturally more vulnerable to drought,” adds Madani.
In simple words, “water bankruptcy” means that a country is using more water annually than it is replenishing. In Iran, this is a state resulting from decades of resource mismanagement, excessive dam building and inefficient agricultural practices that have been exacerbated by climate change.

A Policy Behind Every Cloud?
Cloud seeding and other weather-modification technologies have existed for many years and are being used by nations all around the world.
China carried it out during the 2022 Winter Olympics to control weather conditions. Russian firefighters have also reportedly seeded clouds to bring down rain over the 2020 wildfires in Siberia.

In the Middle East, the hottest and driest part of the planet, countries like Iran, Saudi Arabia and theUAE are now ramping up efforts to gain access to more water through artificial means.
But these activities have their own set of advantages as well as drawbacks, experts say. “Any form of climate intervention or manipulation comes with its share of risks,” says Arvind Venkataramana, founder and executive director of the Centre for Sustainability, Innovation and Good Governance.
“Studies have shown some methods can cause further droughts and floods, could affect our food chain and add to geopolitical conflicts. Others have shown a whole range of benefits,” adds Venkataramana.
To better monitor weather-modification programs governments are investing in, experts believe that global intervention regulations must become stronger.
“There is no need to start from scratch,” says Tracy Raczek, climate policy expert and former climate advisor to United Nations Secretary General Ban Ki-moon. “An international agreement already exists on this issue. Yet it is being neglected.”
The Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques went into effect in 1978 and has been ratified by 78 countries, including the United States, China, Britain, Germany and Russia.
Nevertheless, “the existing legal measures and international agreements in place are weak,” says Madani.
“They are not advanced enough to deal with the modern and unprecedented problems the world faces today. So, they cannot really protect the rights of nations against new anthropogenic threats,” addsMadani.
Furthermore, “the international community needs to shore up international policy on the security risks of cloud seeding as well as other weather modification technologies, and soon,” says Raczek.

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Israeli Prime Minister Benjamin Netanyahu offered Israeli assistance with Iran’s water woes once its people shake off the tyrannical regime in Tehran.

[So is this multiyear Iranian drought weather modification? Part of a regime change strategy?]

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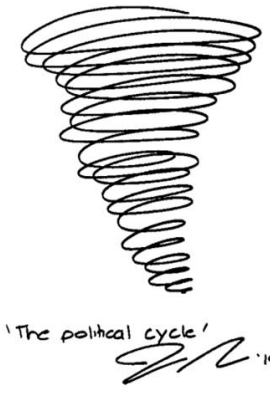

In 2018 and 2019

Jacinda Ardern drew two pictures

for charitable fundraising

Was Jacinda’s artwork a (prescient) Freudian slip?