

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report

For the last six years, I have watched the Ridiculously Resilient Ridge (stationary - “permanent” high pressure west of California) drag extreme cold air into the heartland of the USA, EVERY YEAR, beginning on Nov 1.

Meteorologists have puzzled over this for years... Finally, on November 7<sup>th</sup>, 2019, I figured out HOW THEY ARE DOING IT!!!

This video discloses the basic ideas of the technology, which are being used to rapidly melt the Arctic, and put the USA into a deep freeze, every winter.

In addition to runaway greenhouse gas emissions, this hidden program is speeding up our extinction and removal from this planet.

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Why should you care, if the Arctic becomes ice-free?

When the ice is gone, the jet stream will become very weak, or even non-existent, in the summer.

With no jet streams, if it rains at your house, it will rain for three months. If it is hot and sunny at your house, it will be hot and sunny for three months.

Under those conditions, large scale agriculture becomes impossible, or at best, a vegas gamble.

Extreme food shortages will be the norm, after the Arctic ice is gone. That is just the start, and why you should care about the melting Arctic.

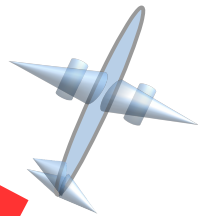
Youtube is suppressing my channel, so please share links.  
Please download and repost this video – no copyright on this slide show  
PDF is free to download, look for link in the description.

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## Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report

DBAS requires different chemicals sprayed simultaneously,  
From two tanker jets, flying parallel, at the same altitude:



Dry powder  
Aluminum  
Sulfate  
( $\text{Al}_2(\text{SO}_4)_3$ )  
HEATS air  
as particles  
attract water,  
causing air to  
rise.



Dry powder  
Aluminum  
Fluoride  
( $\text{AlF}_3 \cdot 3\text{H}_2\text{O}$ )  
COOLS air  
as particles  
attract water,  
causing air to  
sink.

**IMPORTANT!**  
How these chemicals were  
found is at the end of the  
slide show.

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained Differential Buoyancy Aerosol Spraying (DBAS) by The HAARP Report

Let's look at a quick video history

And the revelation that I had, seeing the  
“candy cane of truth” on GOES west  
infrared 11-07-2019 1600 UTC  
in the 10.3 micron band

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Operational Characteristics:

1) tankers spray dry hygroscopic (absorbs water from the air) powder

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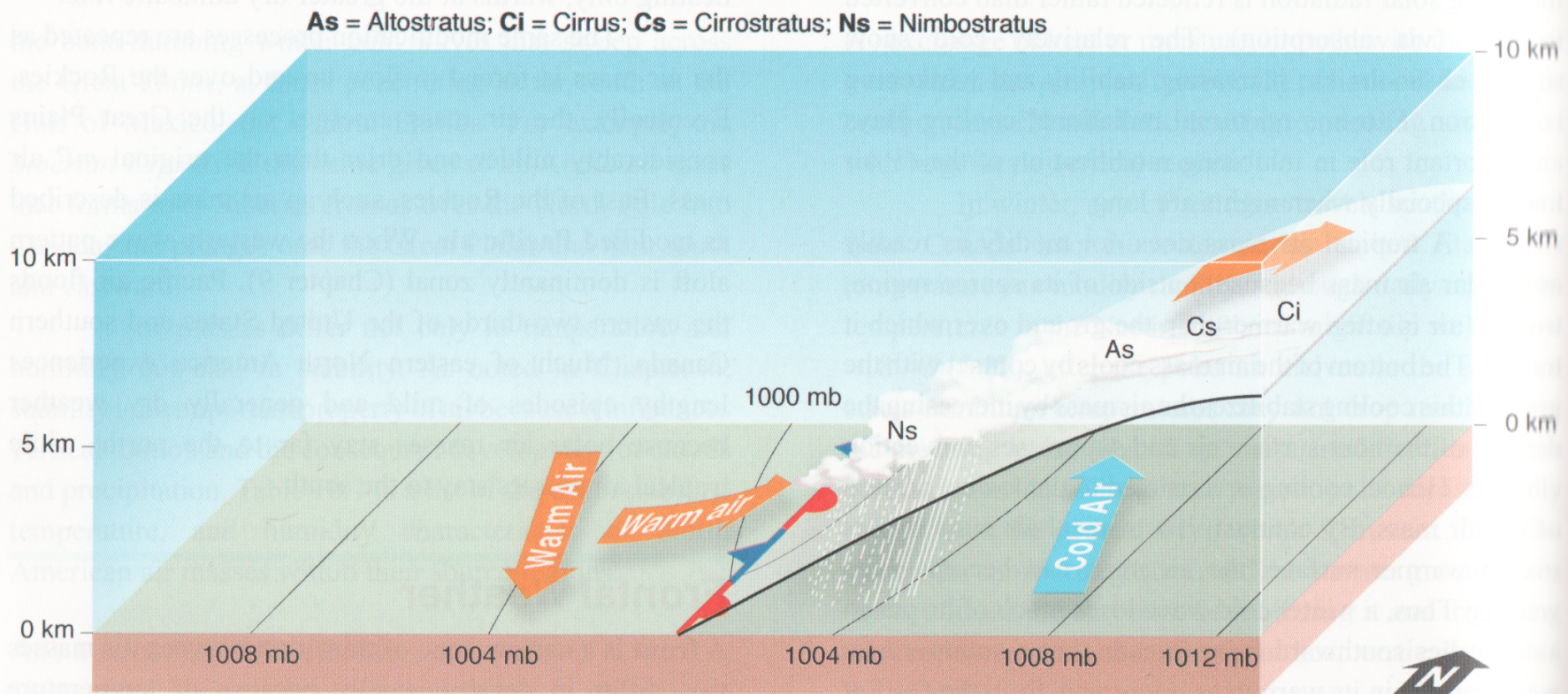
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- 8) Natural clouds hide operations from nighttime IR satellite imagery
- 9) Compliments daytime use of Ionospheric Heaters for jet stream control
- 10) Supercomputer positions the aerosols to harvest natural energy from Frontal zone temperature difference (natural energy amplification)

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## Differential Buoyancy Aerosol Spraying (DBAS)

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What does a stationary front look like, in a good text book?



**FIGURE 10.3**

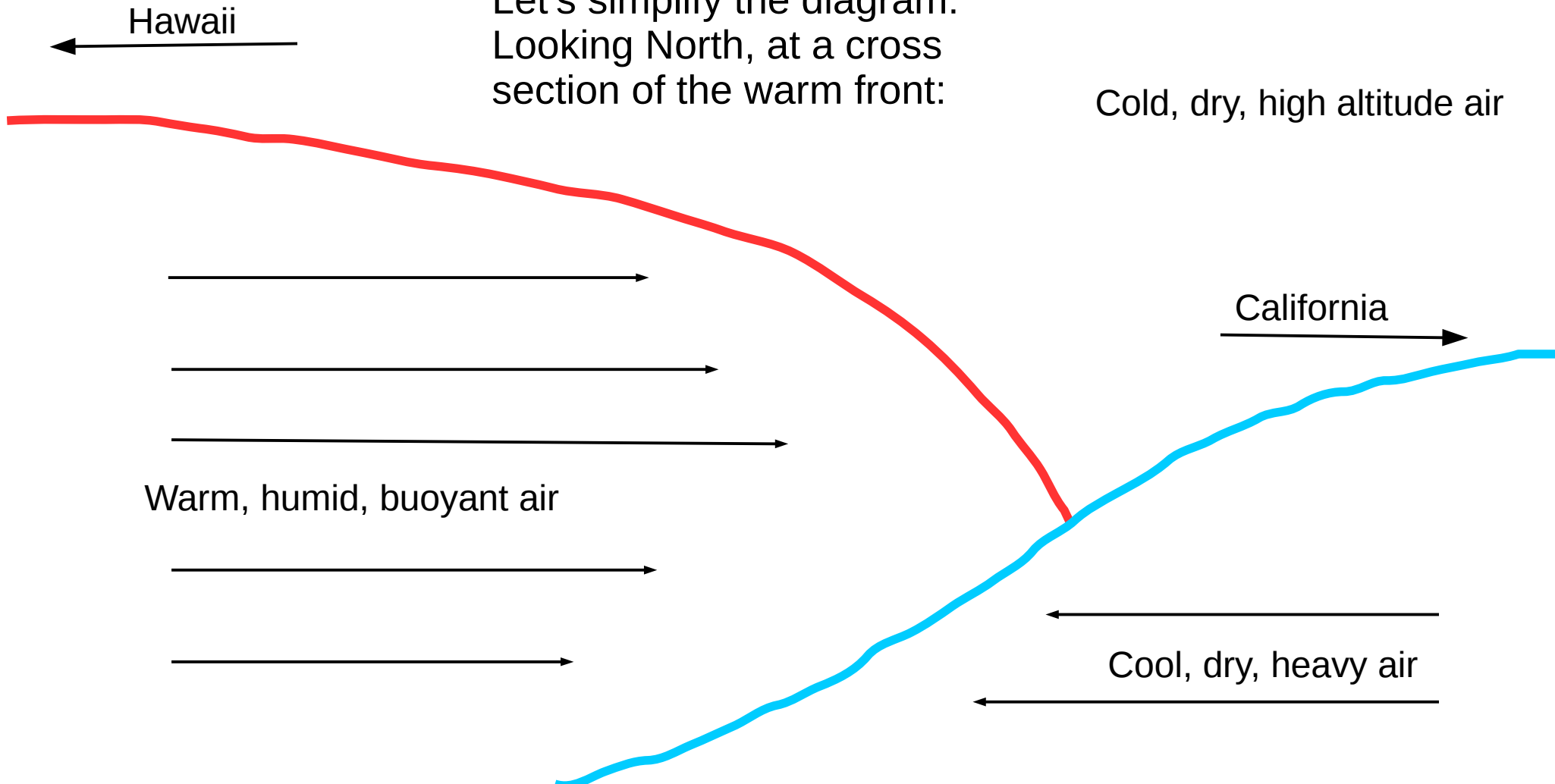
A stationary front; the vertical scale is greatly exaggerated.

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report

Let's simplify the diagram:  
Looking North, at a cross  
section of the warm front:



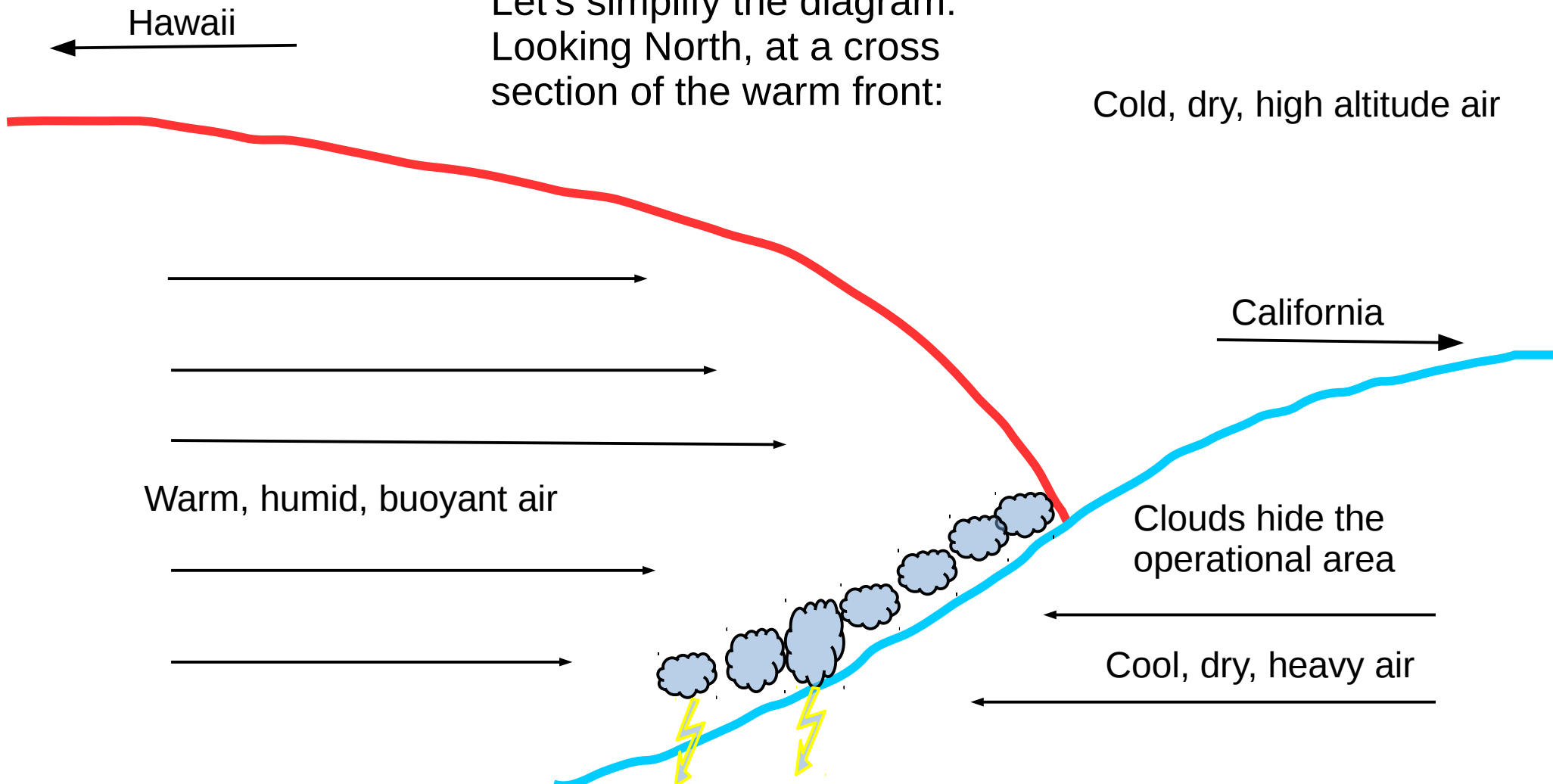


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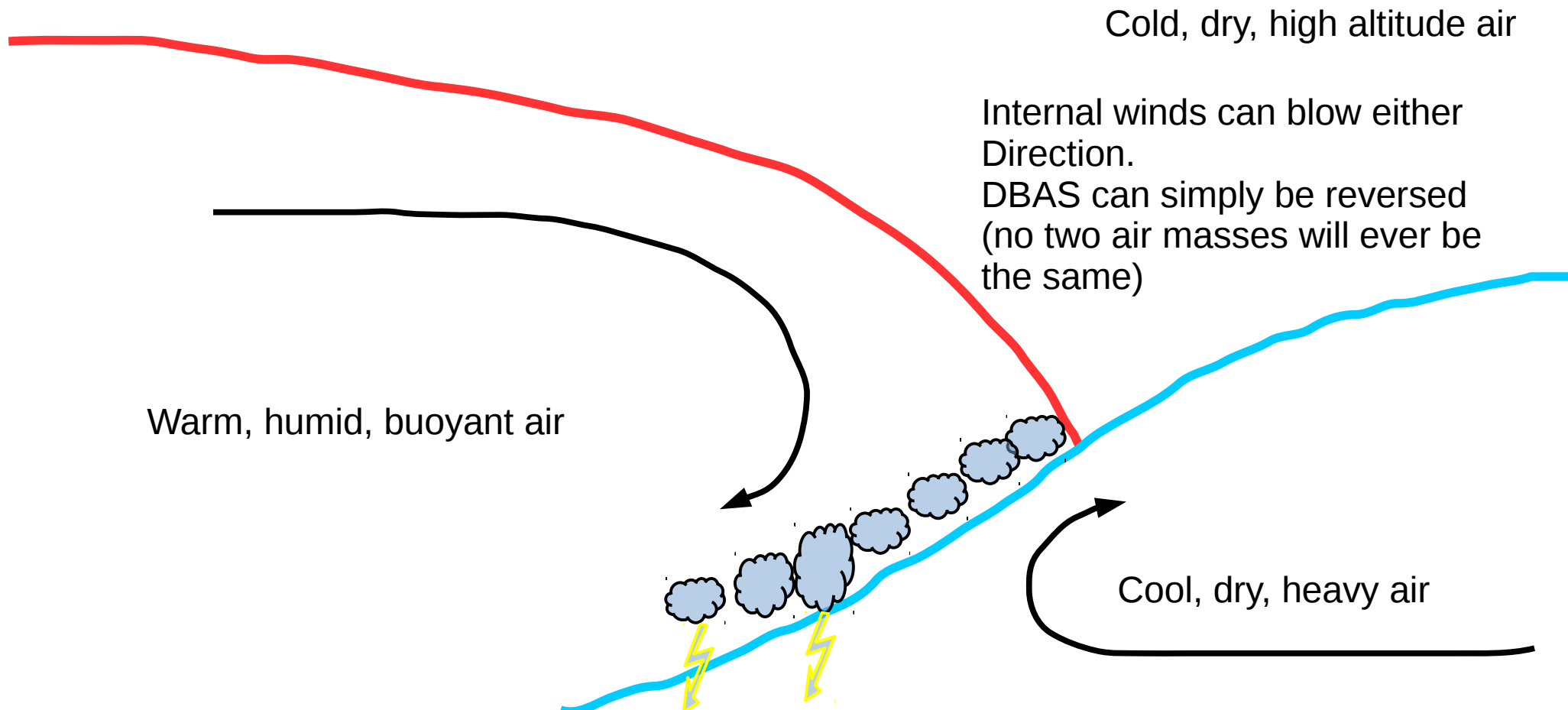
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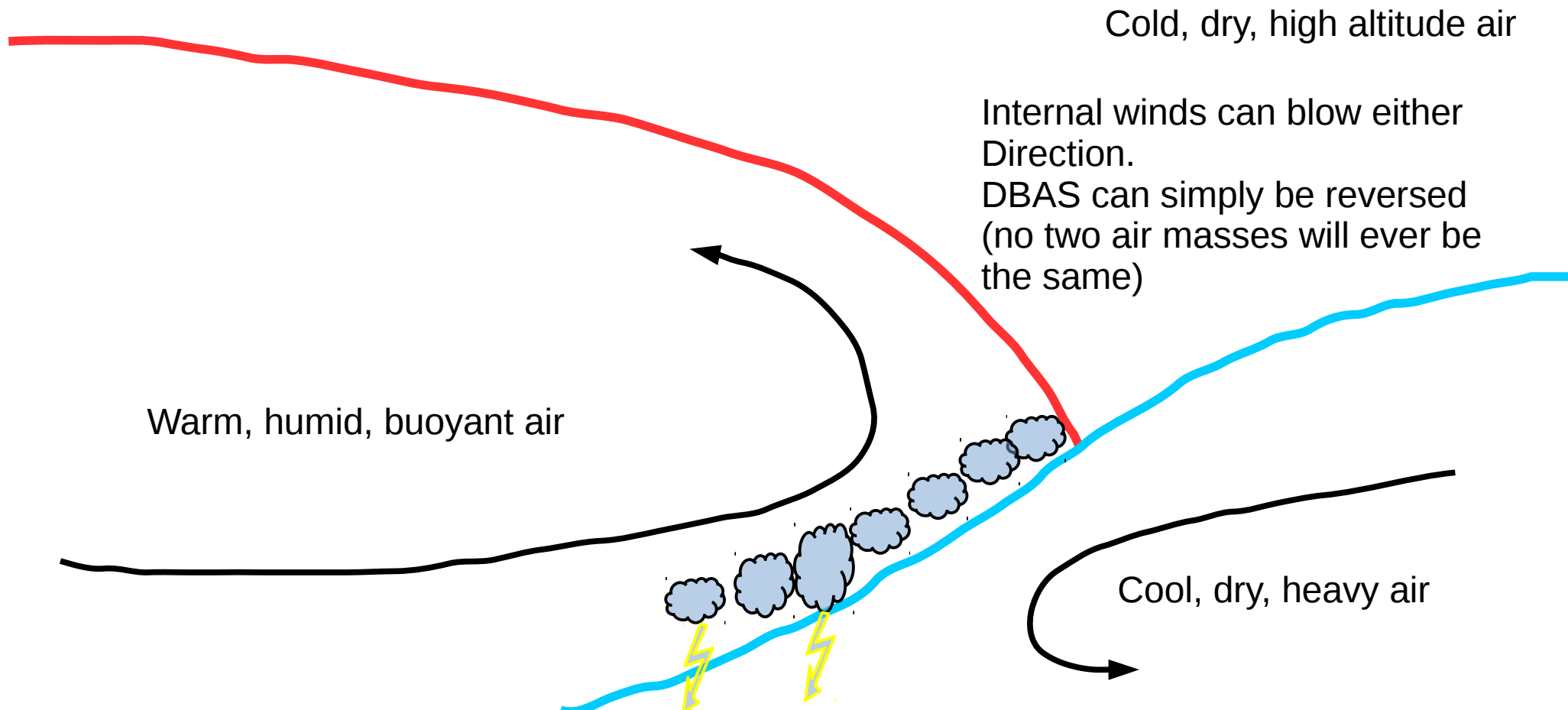
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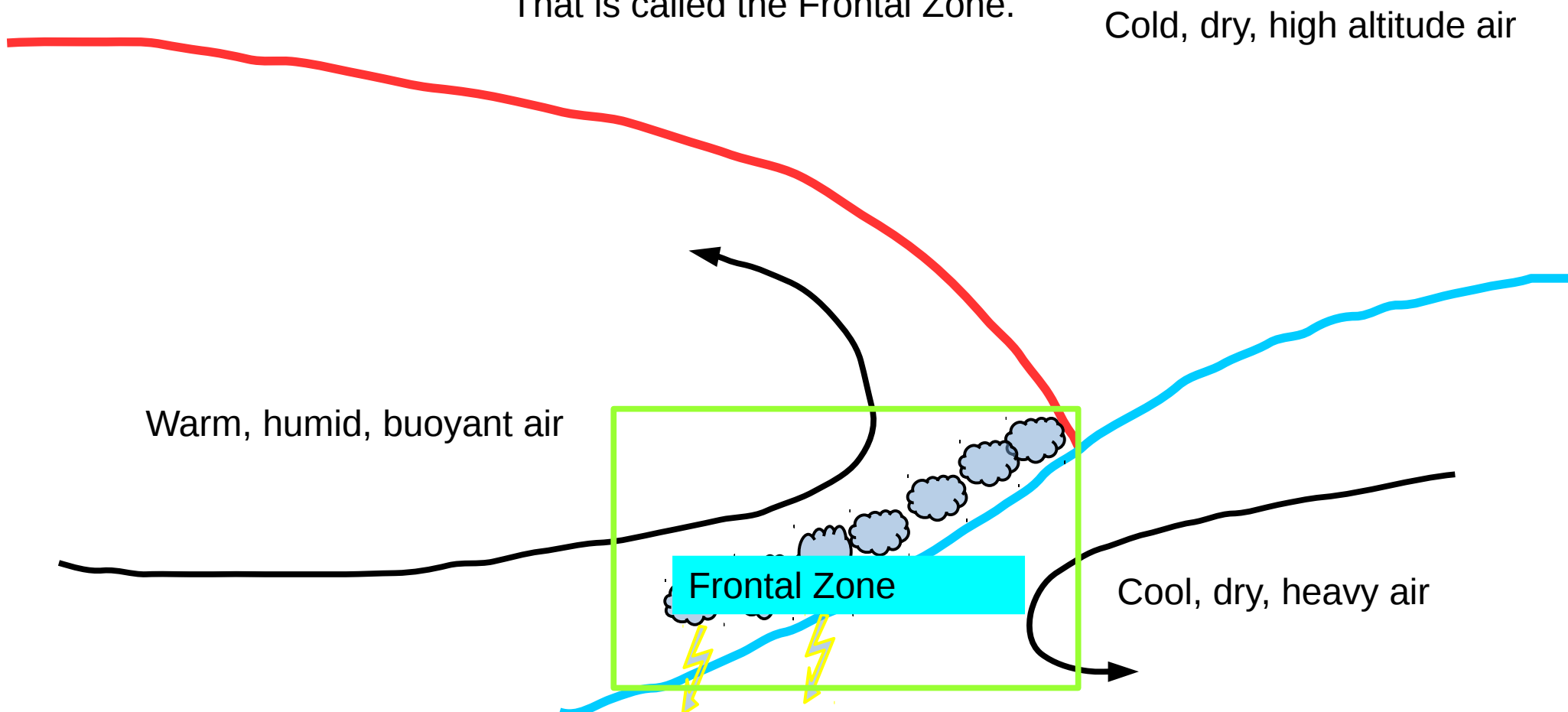


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The critical area is where the two air masses touch each other. That is called the Frontal Zone.



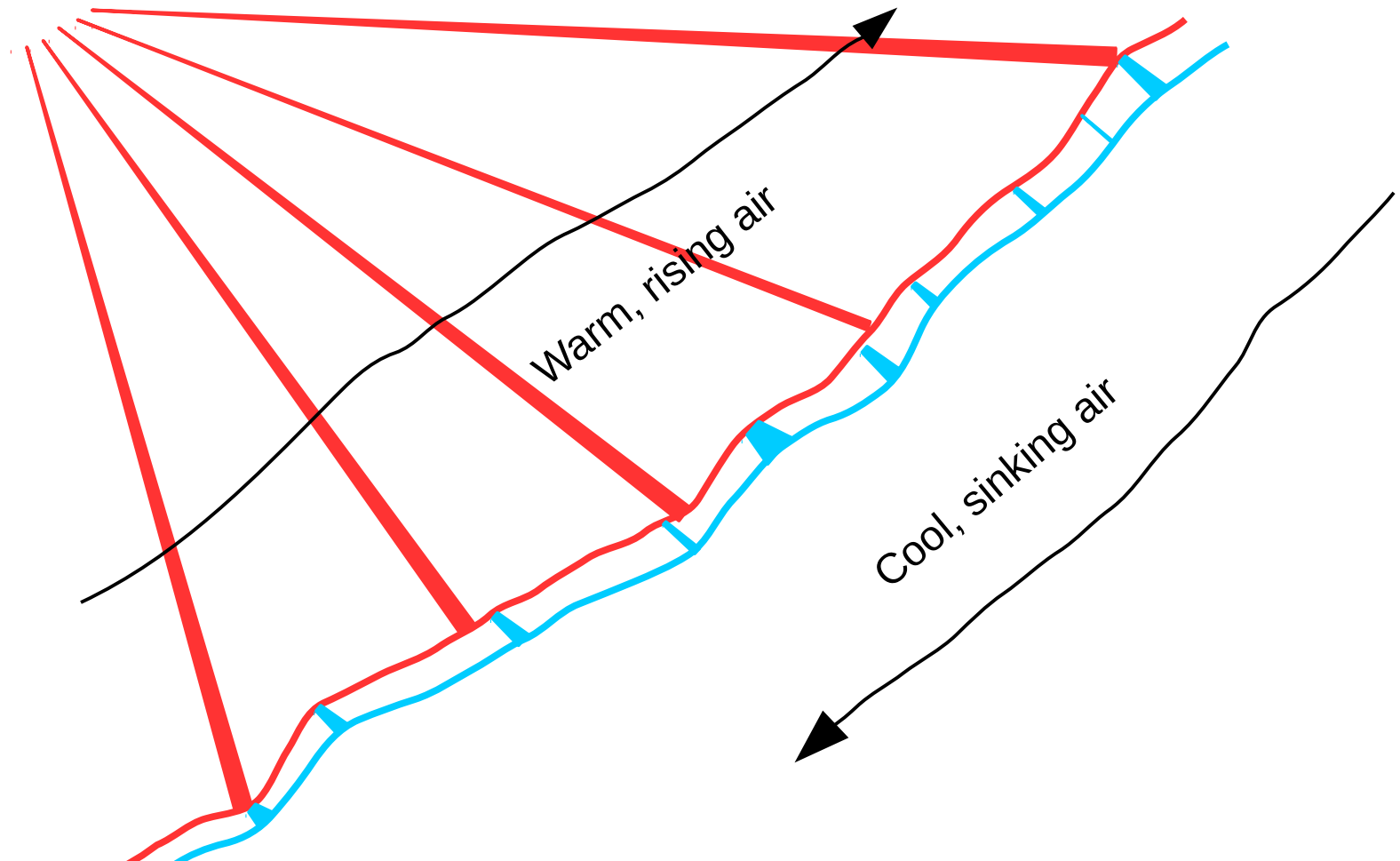
# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report

Frontal Zone Detail (looking to North over Pacific)

Two flat sheets of air, extending for hundreds of miles

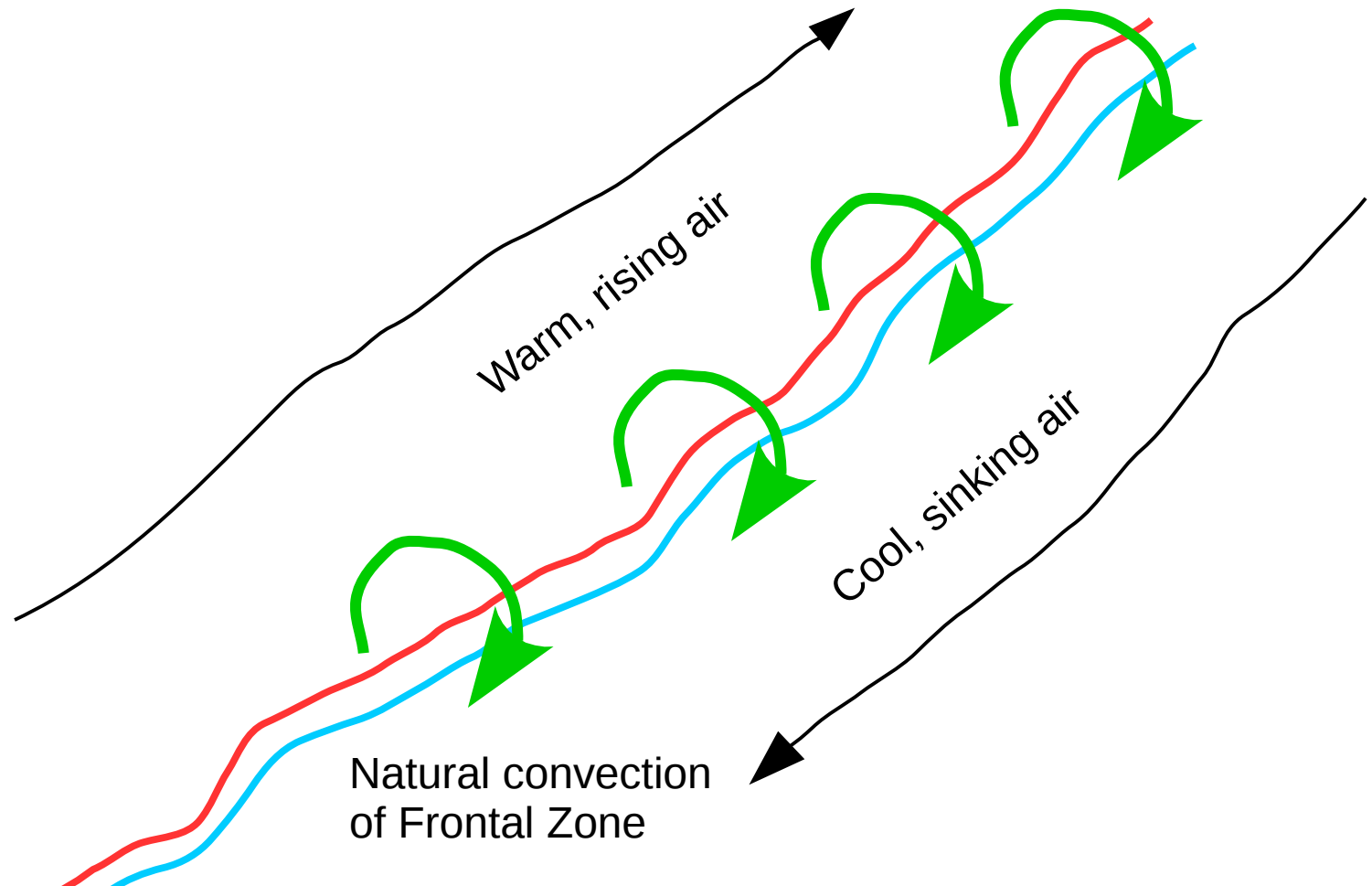


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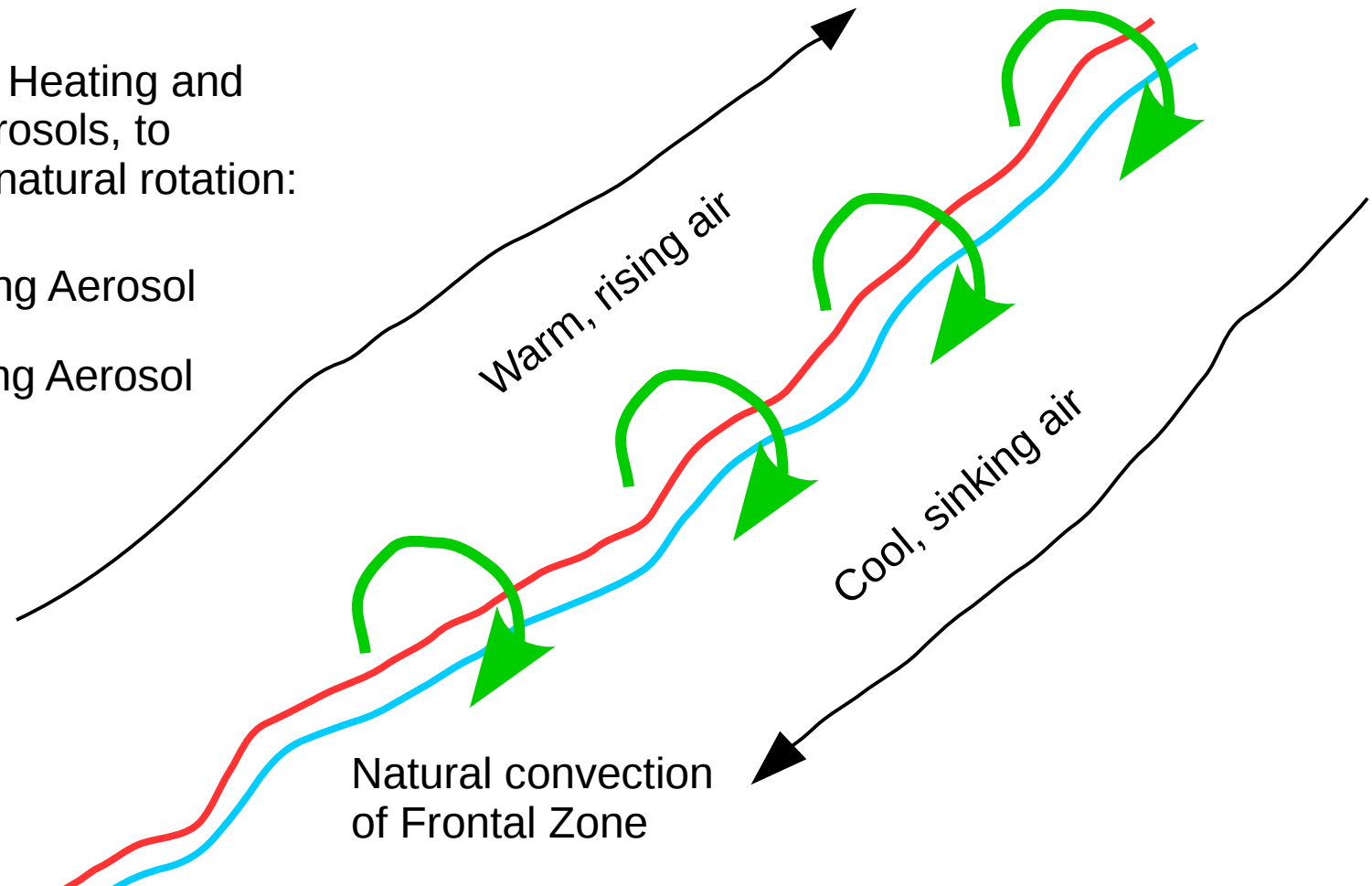
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Frontal Zone Detail (looking to North over Pacific)

Now, apply Heating and Cooling Aerosols, to cancel the natural rotation:

 = Heating Aerosol

 = Cooling Aerosol



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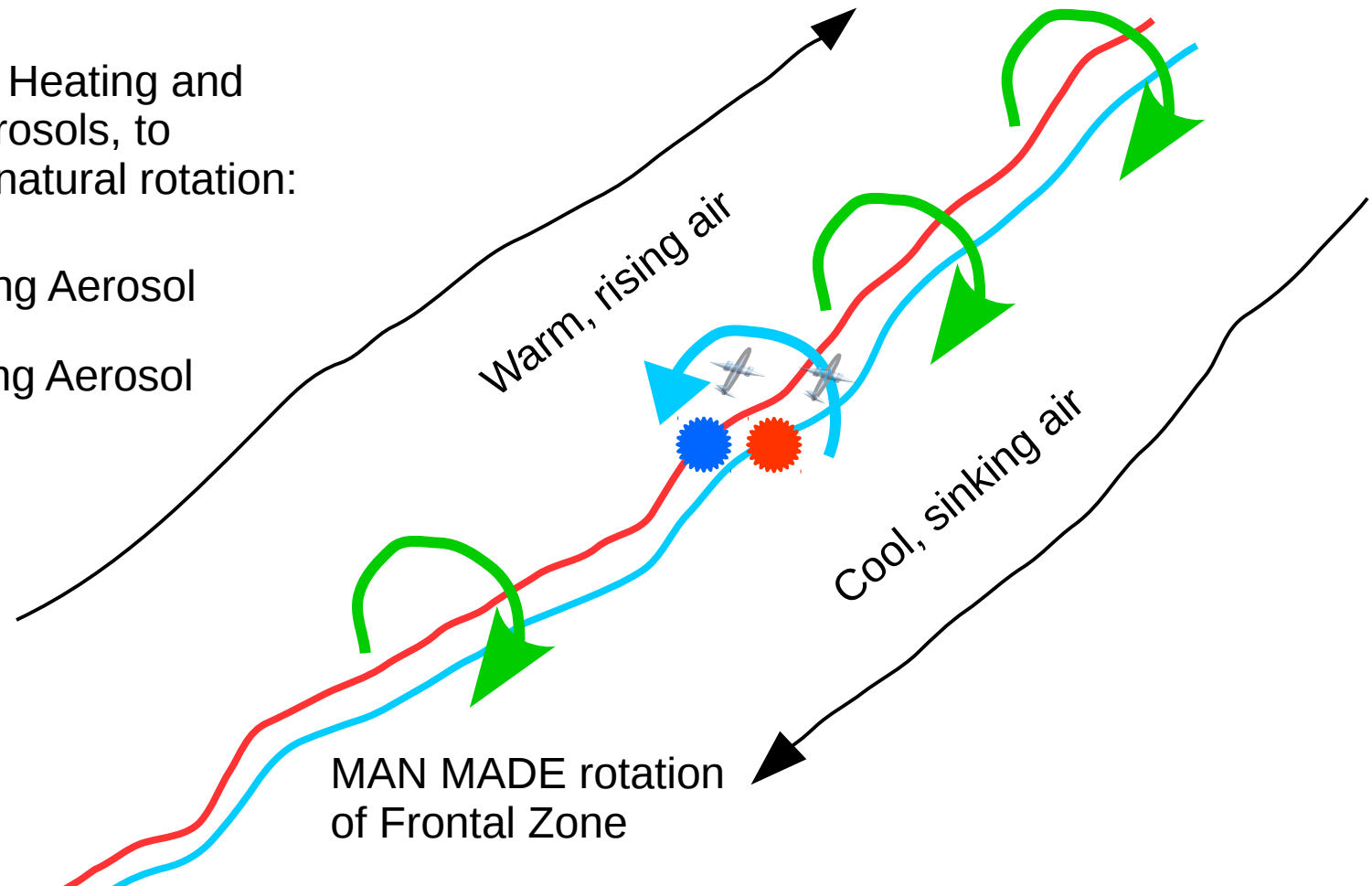
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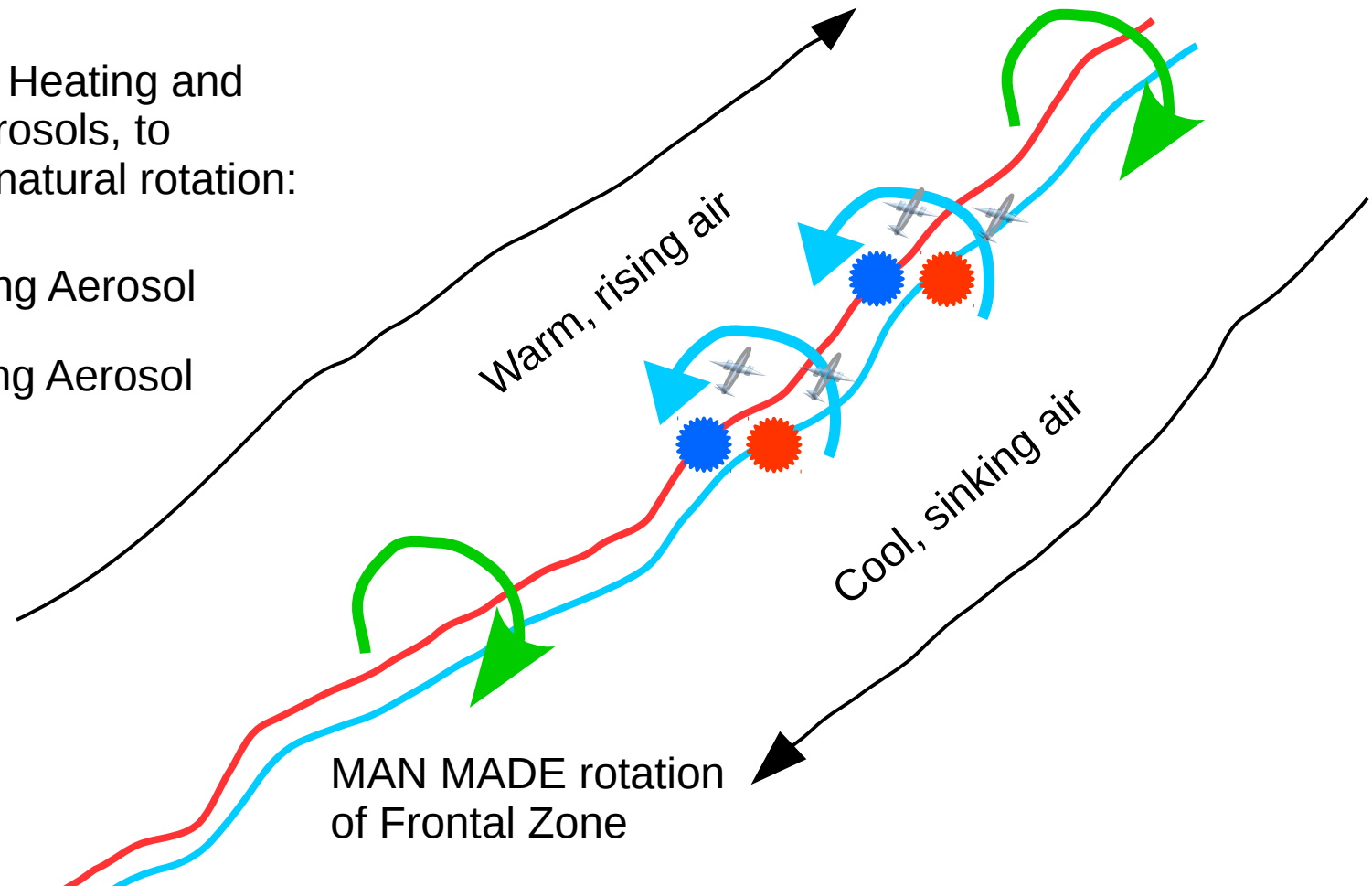
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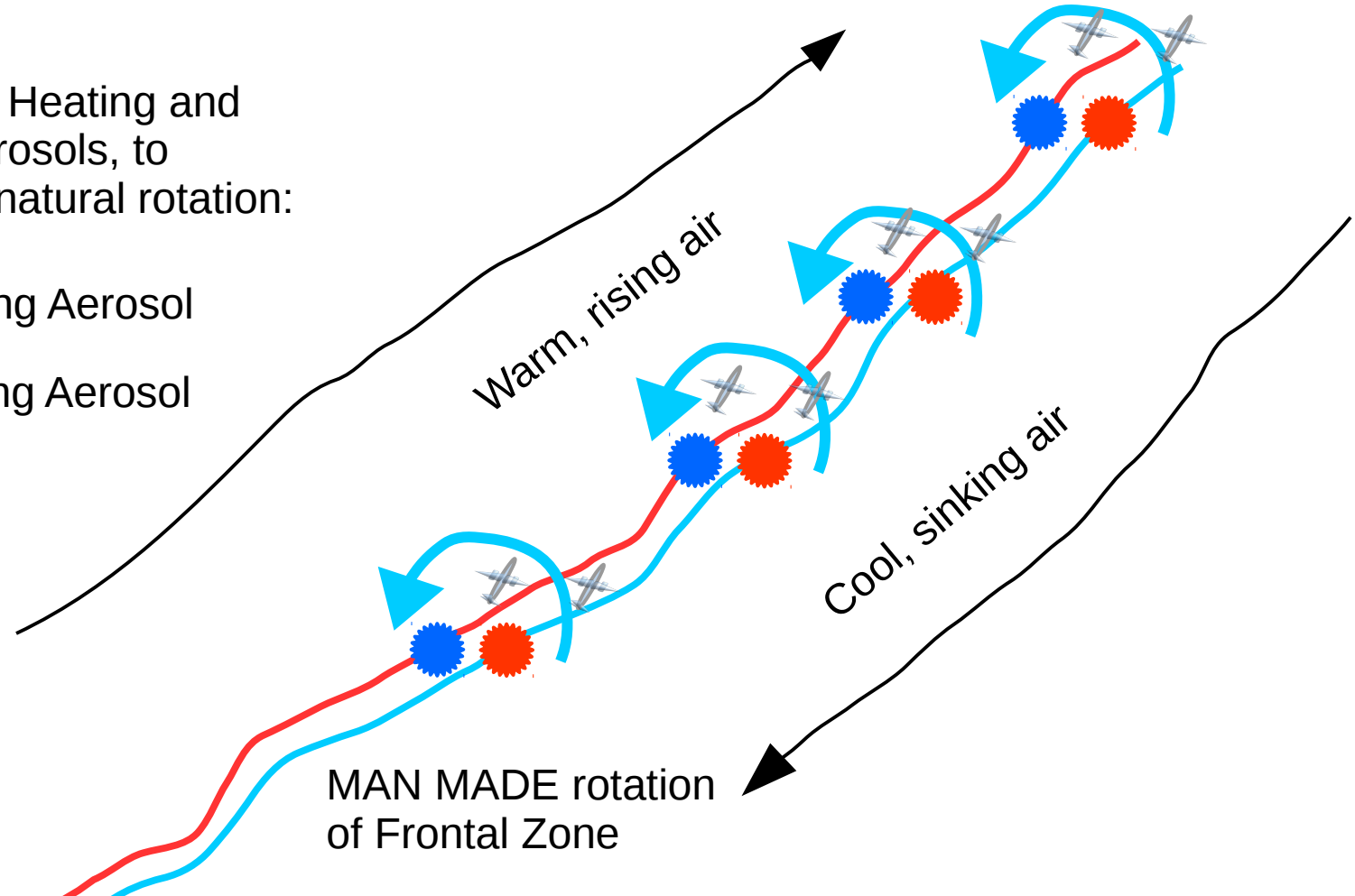
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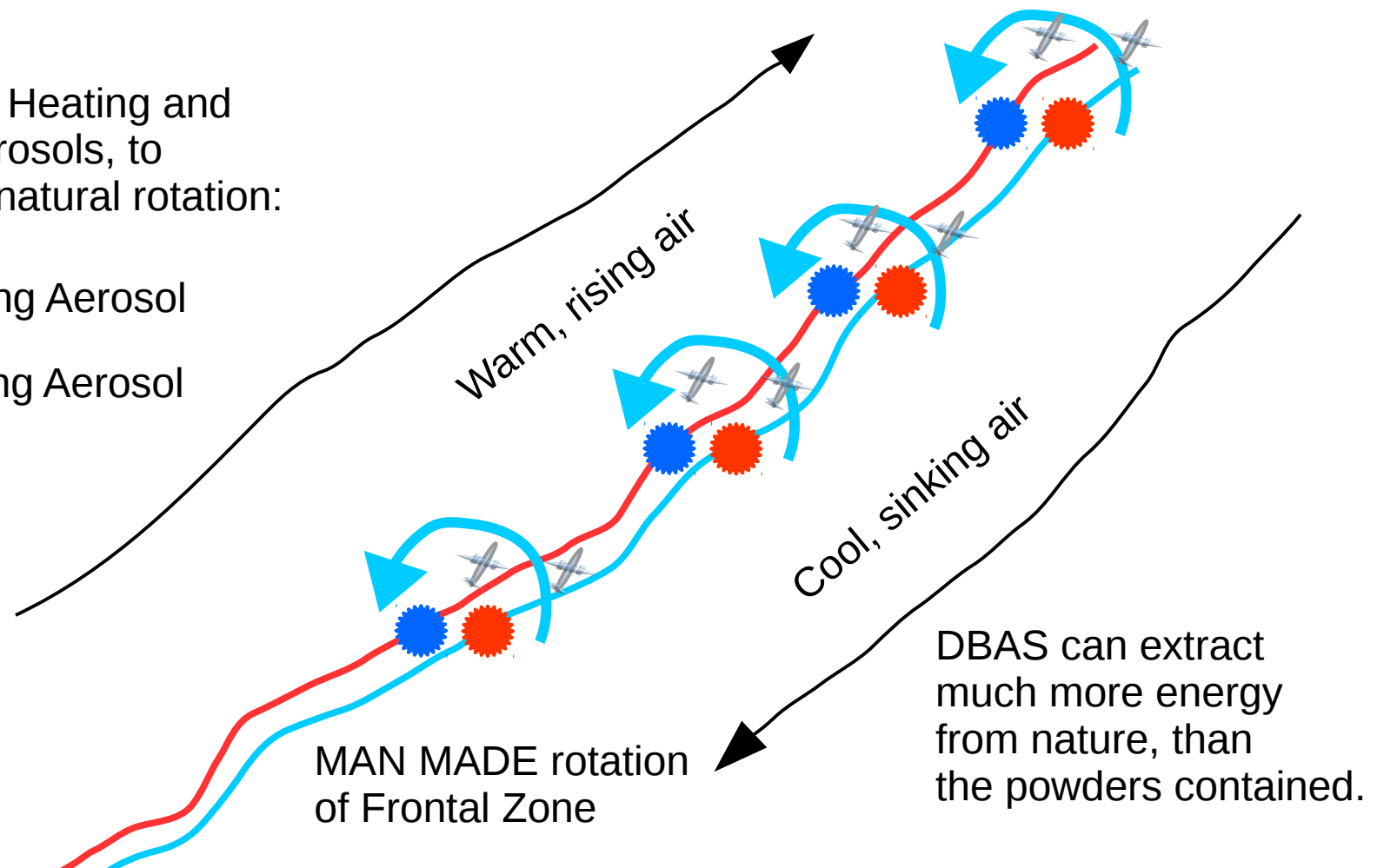
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MAN MADE rotation  
of Frontal Zone

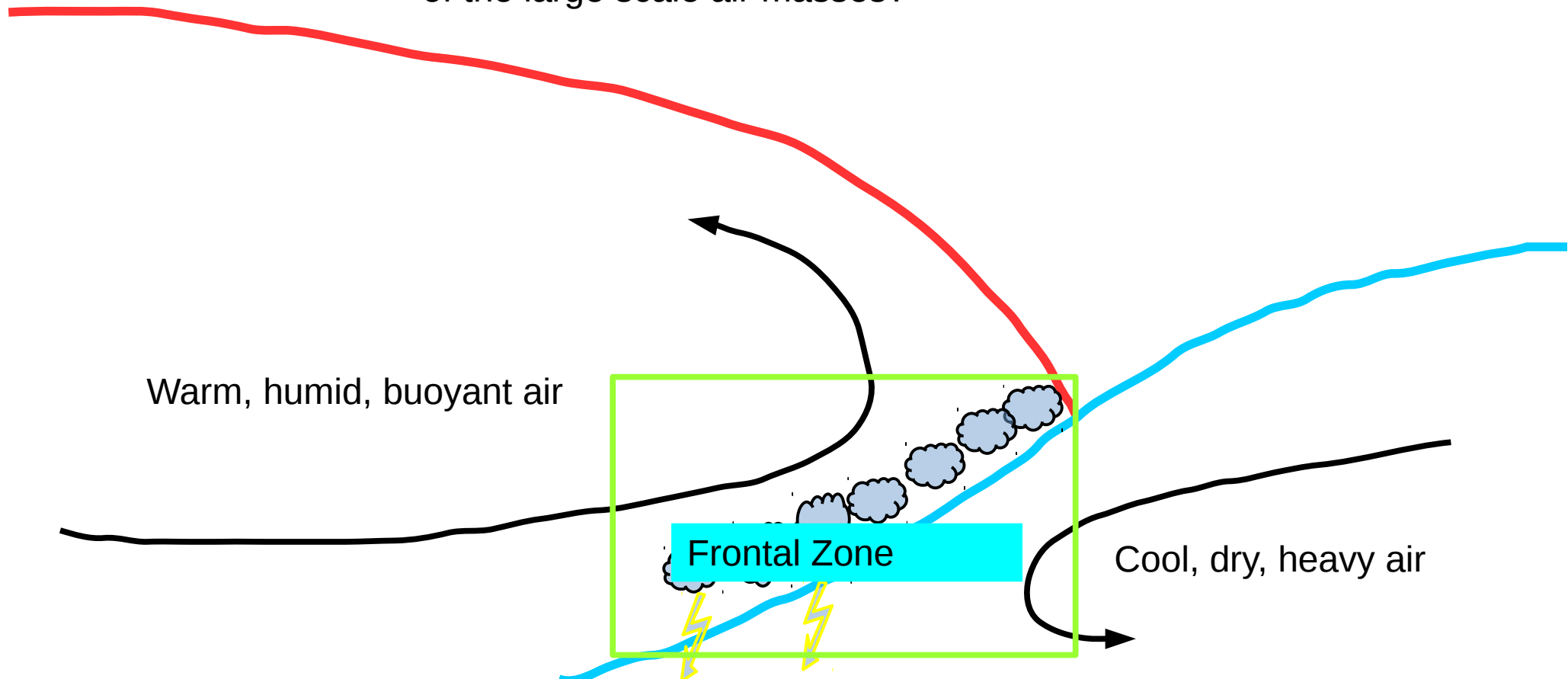
DBAS can extract  
much more energy  
from nature, than  
the powders contained.

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So, what does the man made frontal zone modification do to the movement of the large scale air masses?



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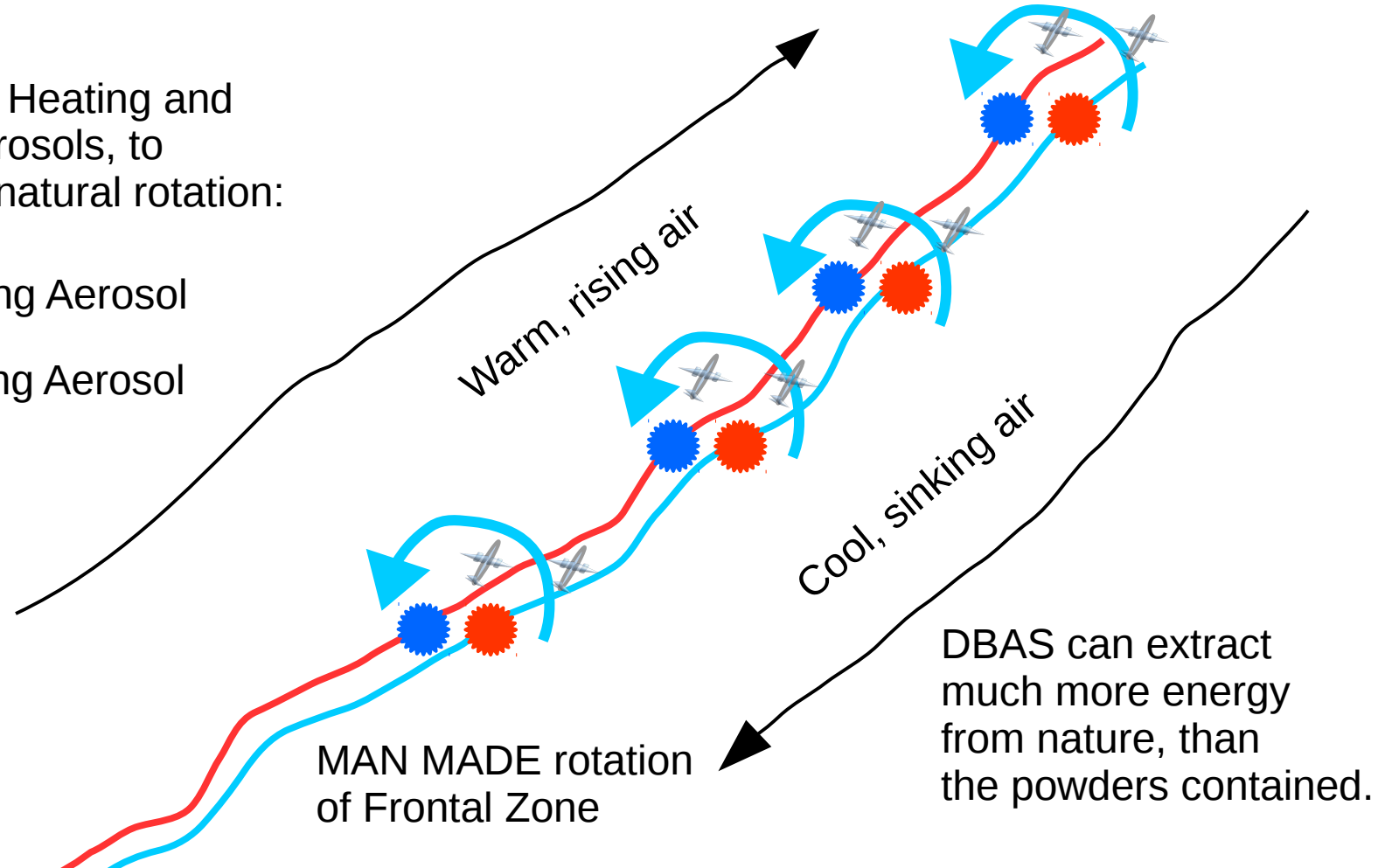
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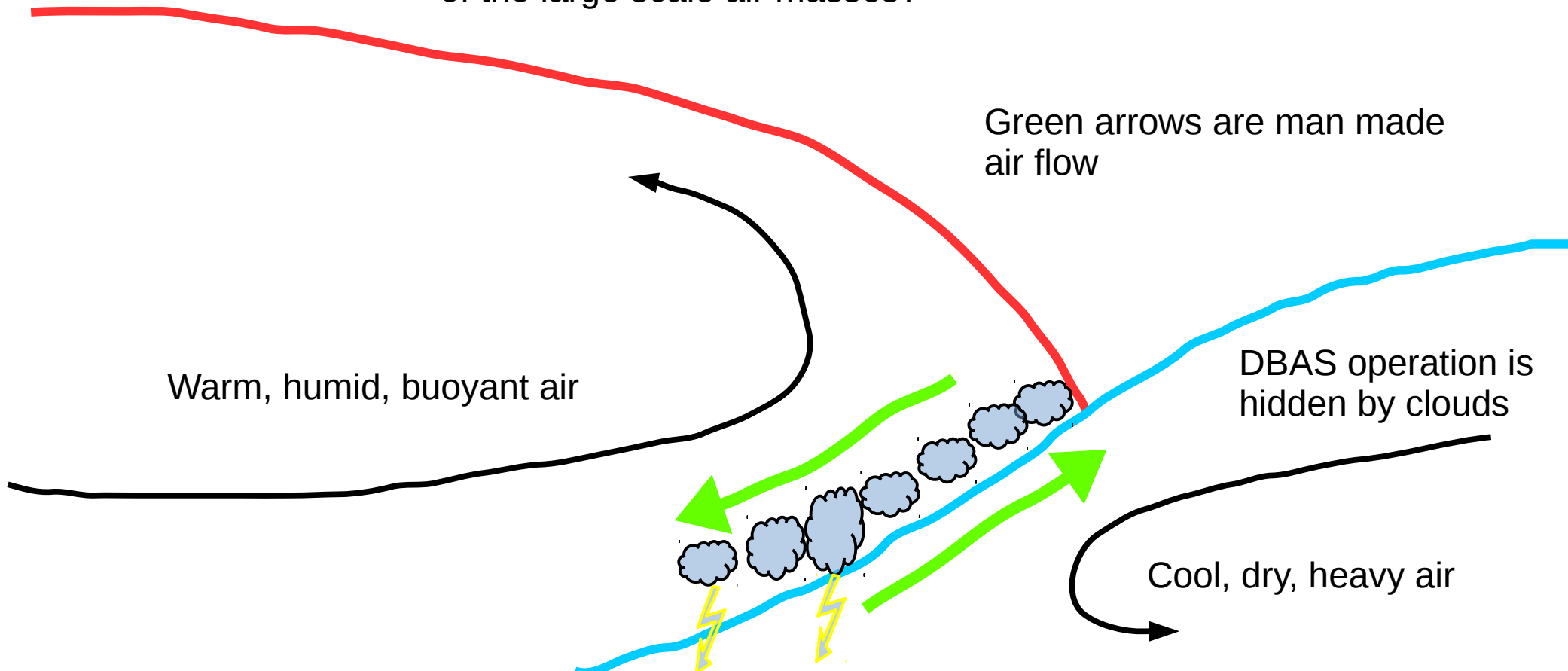
DBAS can extract much more energy from nature, than the powders contained.

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So, what does the man made frontal zone modification do to the movement of the large scale air masses?



Green arrows are man made air flow

Warm, humid, buoyant air

DBAS operation is hidden by clouds

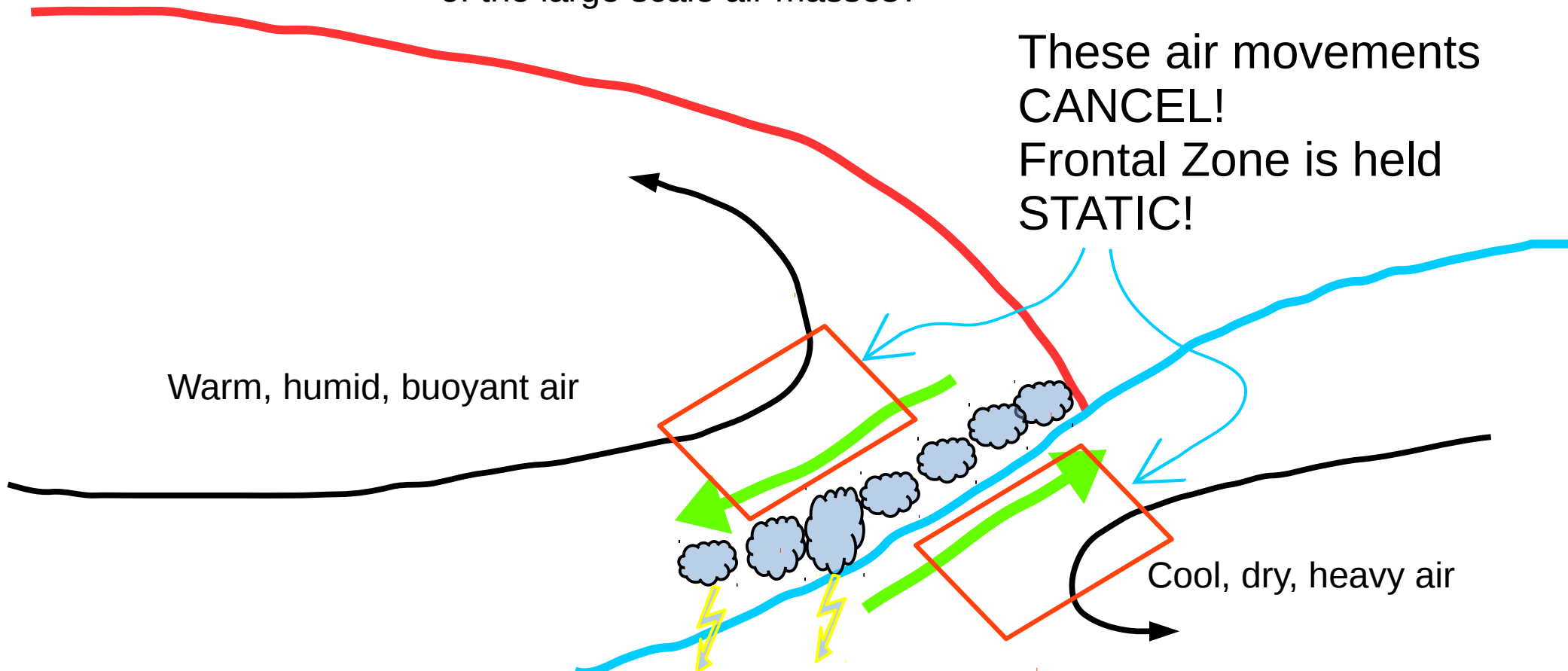
Cool, dry, heavy air

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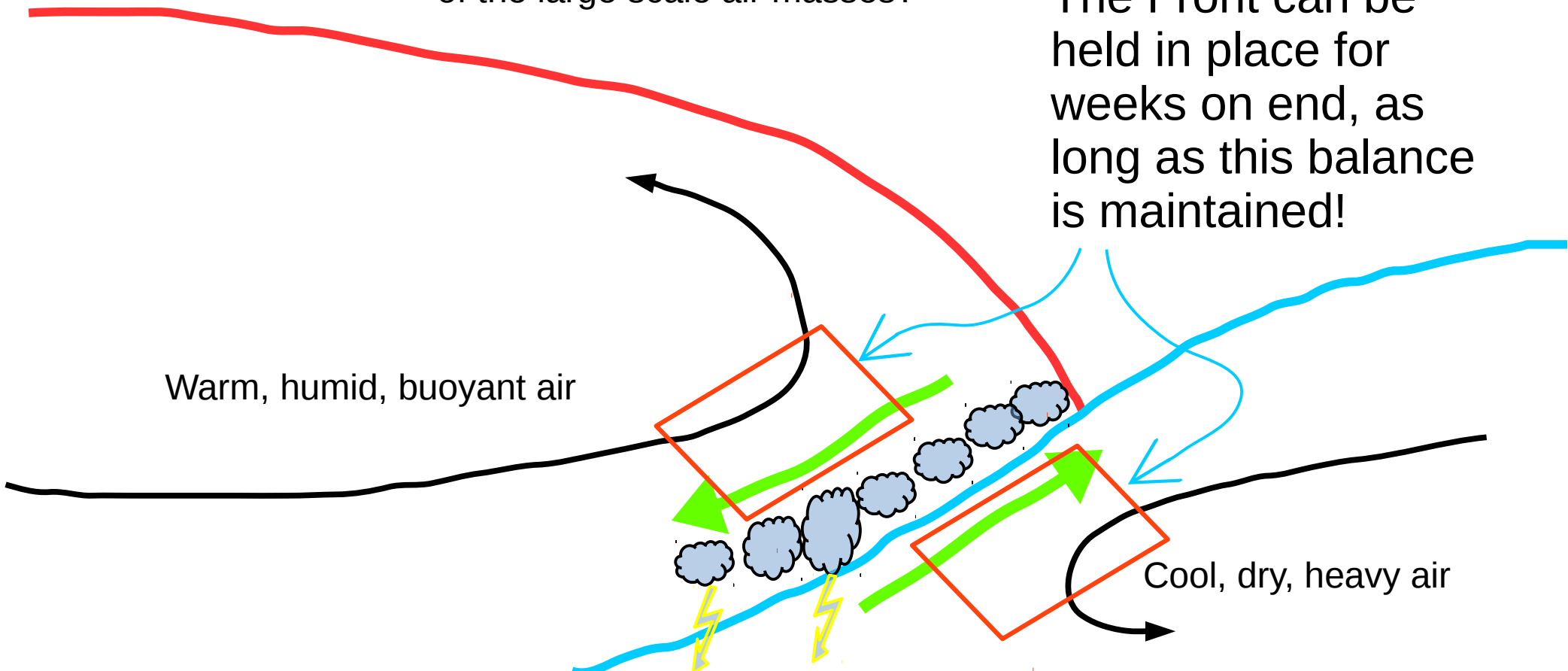
by The HAARP Report

So, what does the man made frontal zone modification do to the movement of the large scale air masses?

The Front can be held in place for weeks on end, as long as this balance is maintained!

Warm, humid, buoyant air

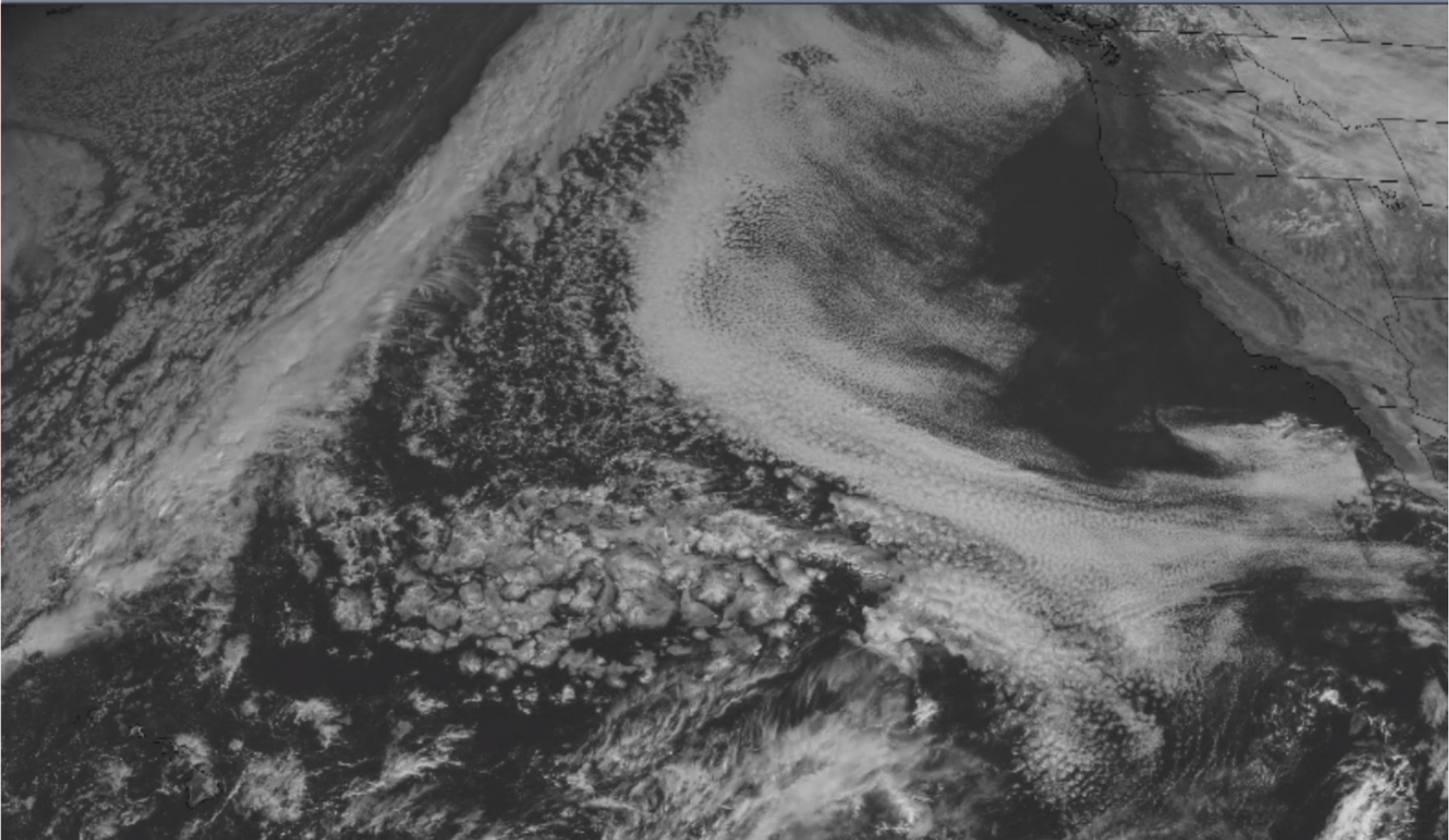
Cool, dry, heavy air





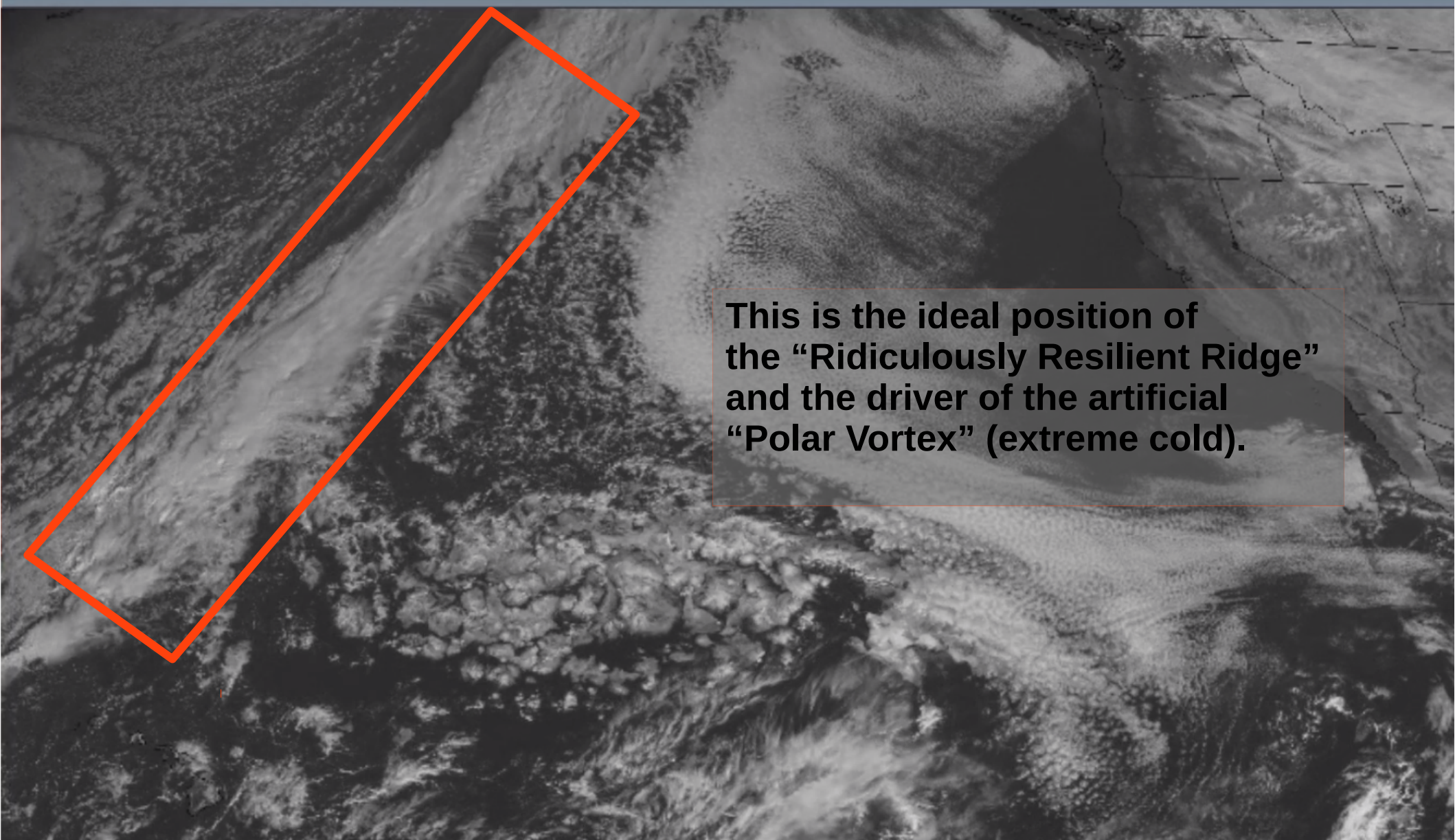
# How the Ridiculously Resilient Ridge and Polar Vortex are maintained Differential Buoyancy Aerosol Spraying (DBAS)

2019-Oct-28 19:01 UTC



# How the Ridiculously Resilient Ridge and Polar Vortex are maintained Differential Buoyancy Aerosol Spraying (DBAS)

2019-Oct-28 19:01 UTC

A satellite image of the Arctic region showing cloud patterns and landmasses. A red polygon is drawn over a large area of the Arctic, highlighting a specific region. The text box is overlaid on the right side of the image.

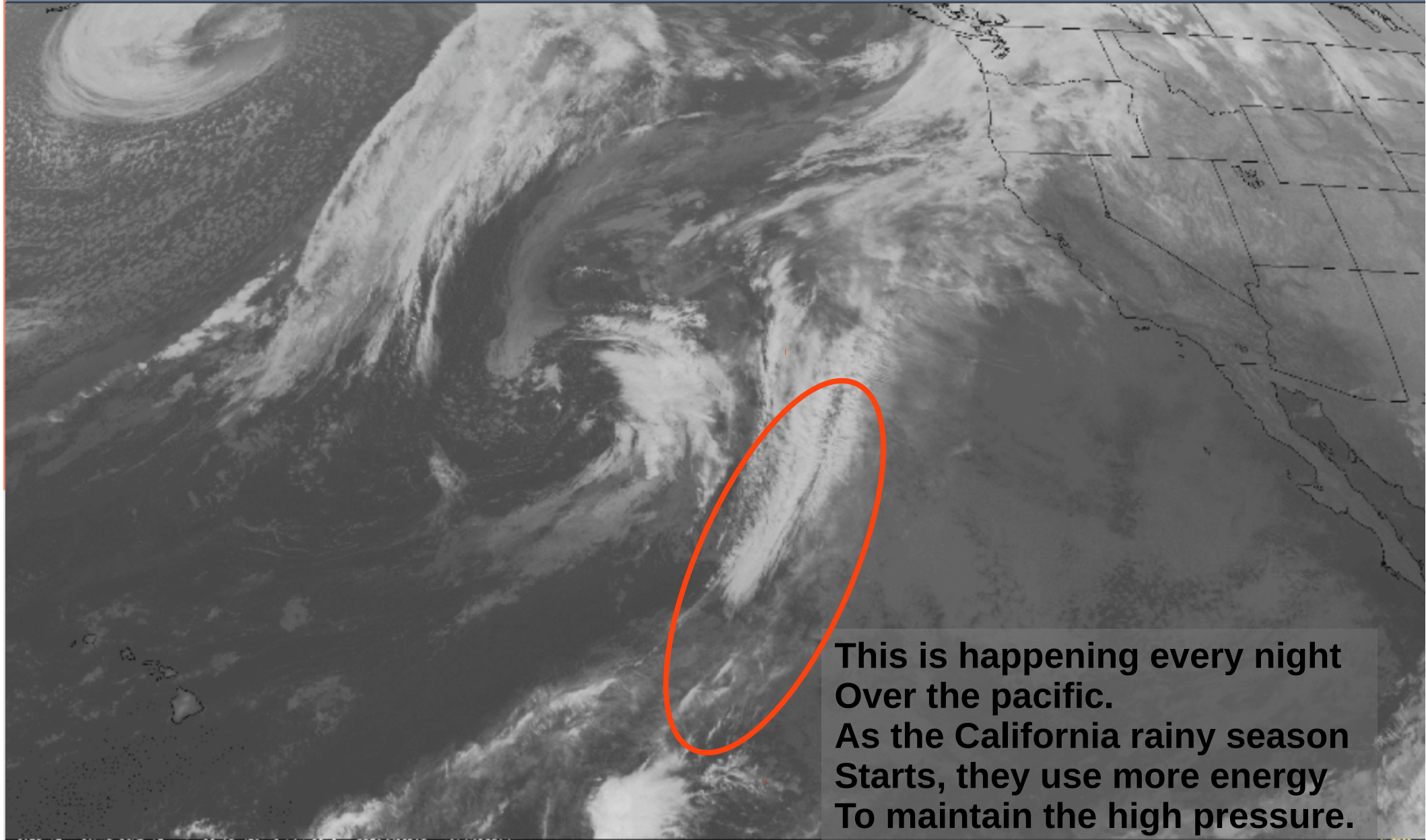
This is the ideal position of the “Ridiculously Resilient Ridge” and the driver of the artificial “Polar Vortex” (extreme cold).

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained Differential Buoyancy Aerosol Spraying (DBAS)

by The HA APP Report

2019-Nov-12 14:06 UTC

(127/145)



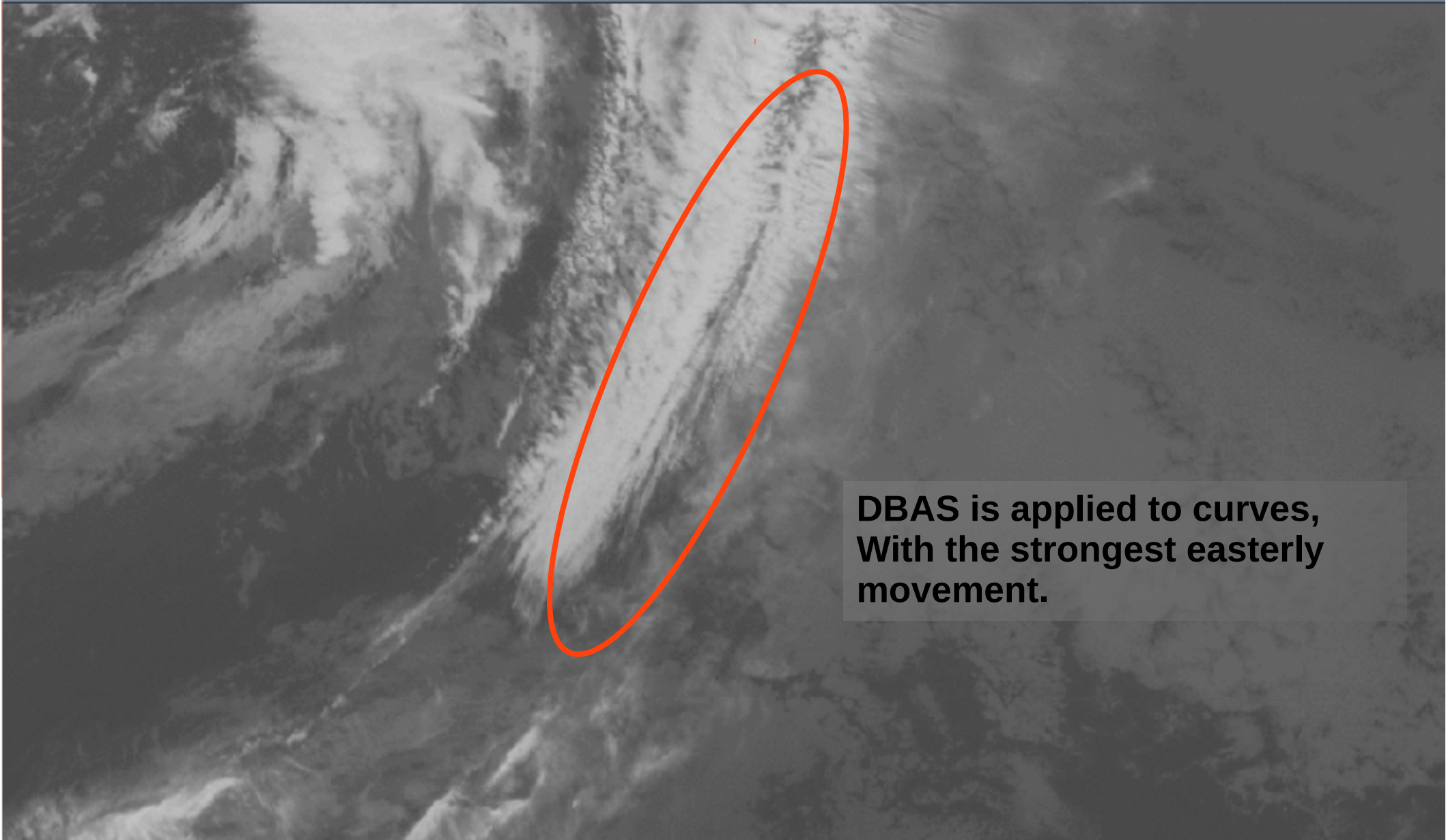
**This is happening every night  
Over the pacific.  
As the California rainy season  
Starts, they use more energy  
To maintain the high pressure.**

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2019-Nov-12 14:06 UTC

(127/145)

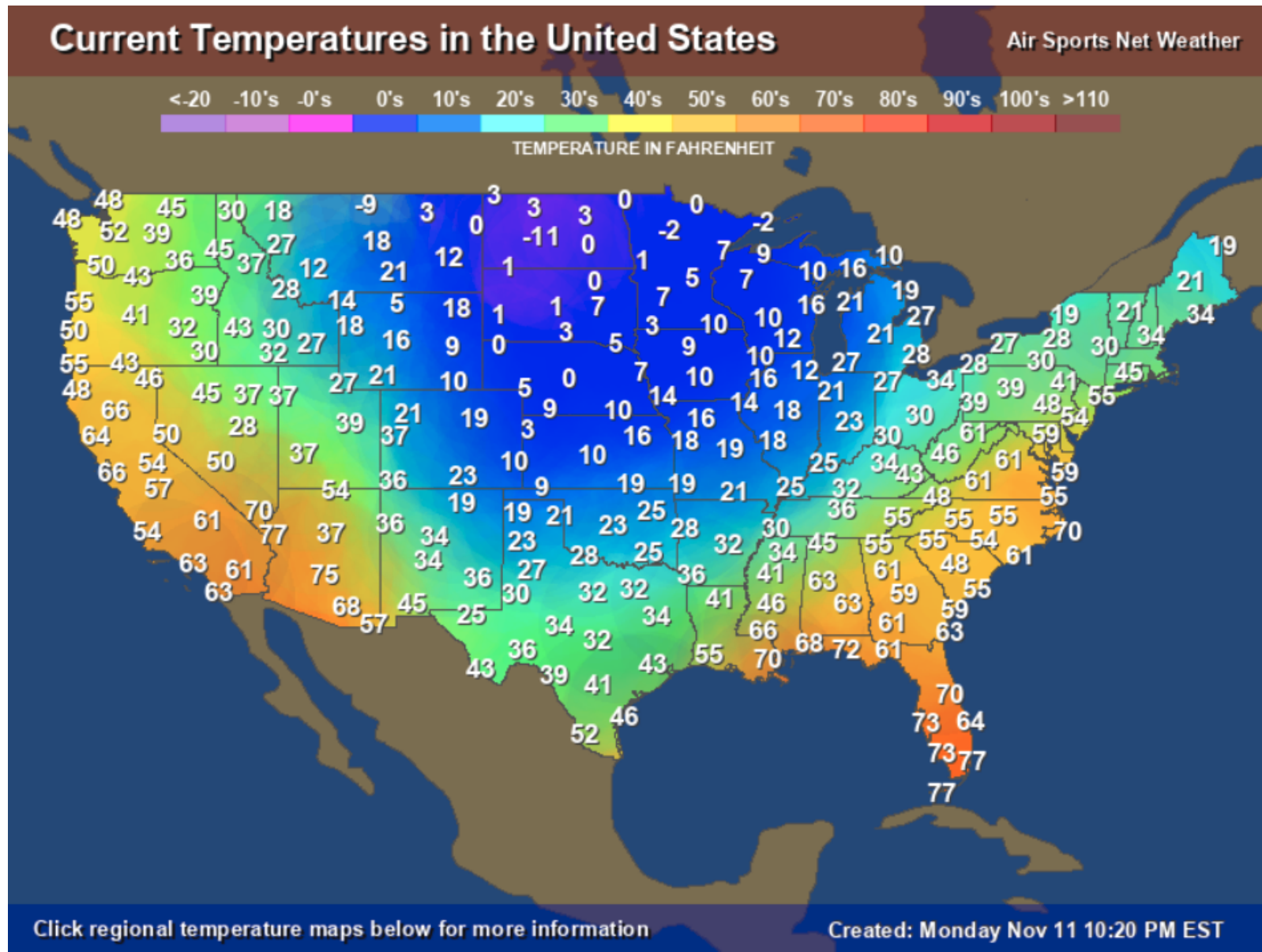


**DBAS is applied to curves,  
With the strongest easterly  
movement.**

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While the USA has extreme cold, Arctic air...





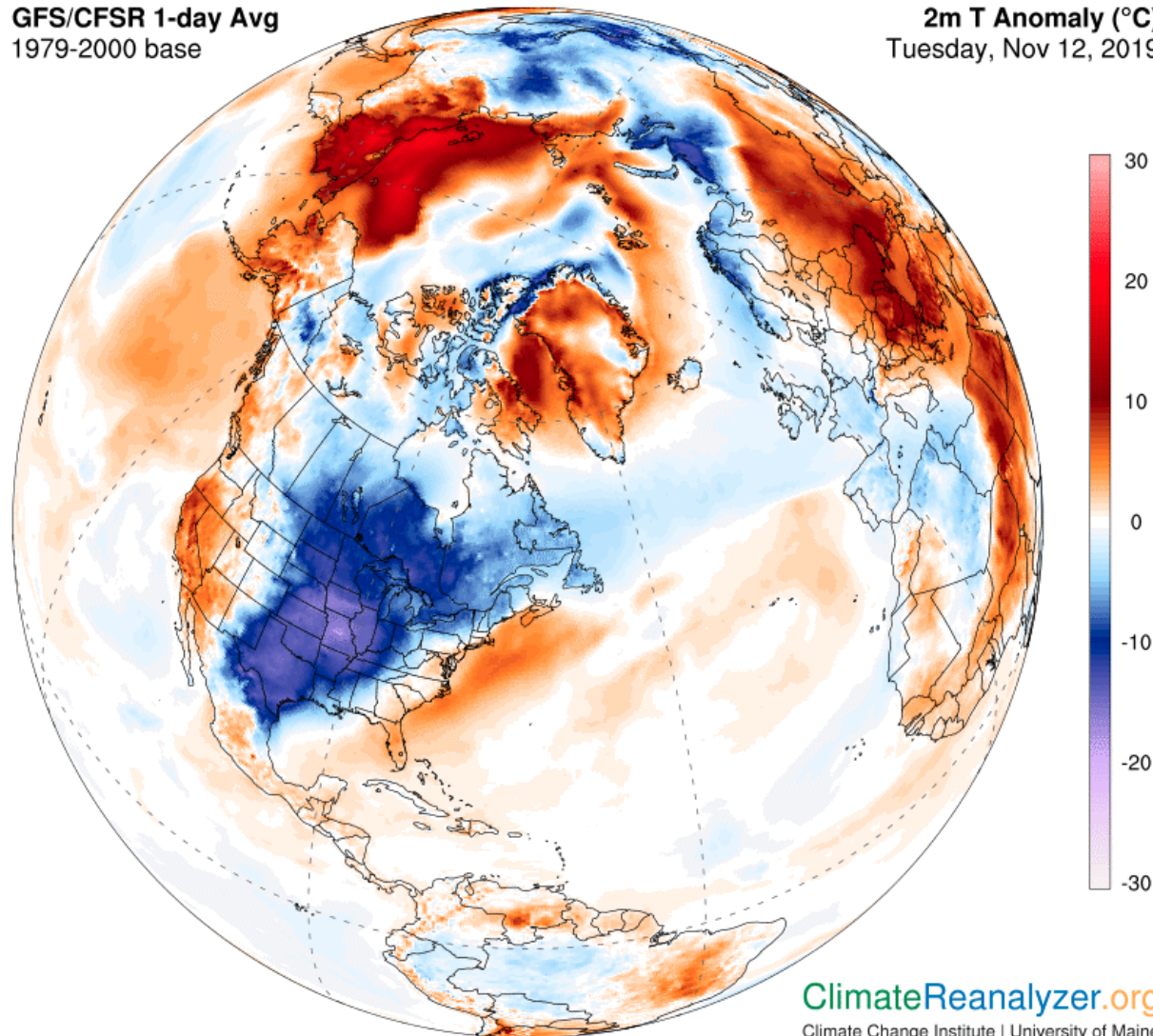
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While the USA has extreme cold, Arctic air...

GFS/CFSR 1-day Avg  
1979-2000 base

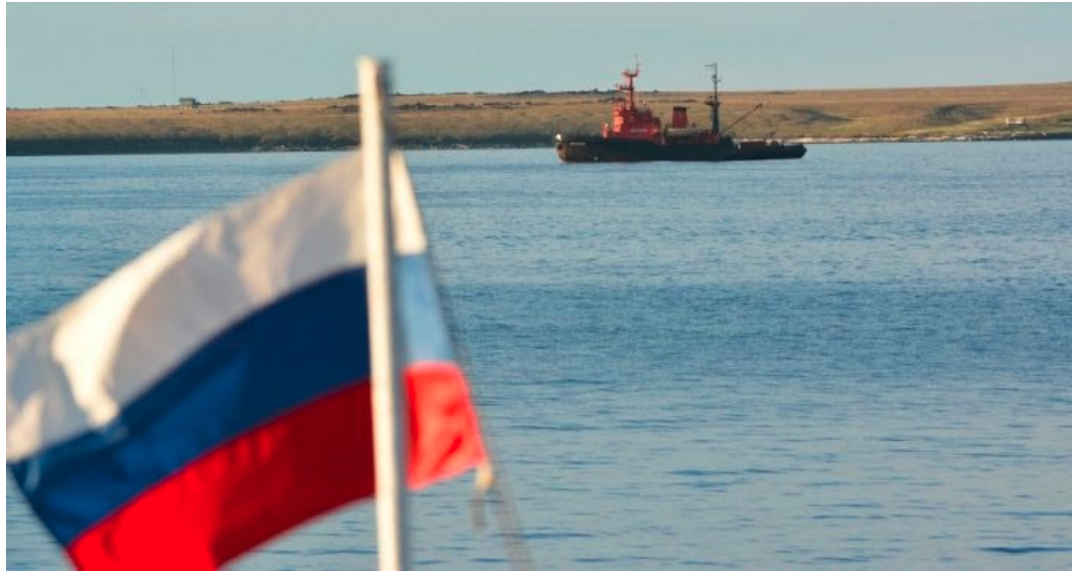
2m T Anomaly (°C)  
Tuesday, Nov 12, 2019



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While the USA has extreme cold, Arctic air...



The Russian Arctic. Photo: Thomas Nilsen

## It was the warmest ever Arctic summer

The top of the world saw record-beating average temperatures flashing through all three summer months.

[Read in Russian | Читать по-русски](#)

**Atle Staalesen**

September 05, 2019

June, July and August have never been this warm in the Arctic. Data from Russian and U.S weather institutes show that all the three months beat the records.

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While the USA has extreme cold, Arctic air...



Illustration photo: Atle Staalesen

## Arctic islands 8 degrees warmer than normal

After the hottest Arctic summer on record follows the warmest ever fall.

**Atle Staalesen**

November 04, 2019

The Russian archipelagos of Franz Josef Land and Severnaya Zemlya experienced the warmest ever October on record. According to Russia's [meteorological service Roshydromet](#), average temperatures on the islands were up to eight degrees Celsius higher than normal.

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While the USA has extreme cold, Arctic air...



Photo: Thomas Nilsen

## September's Arctic sea-ice on track for second lowest on record

September's Arctic sea-ice extent is the second lowest on record, shows recent data from researchers at the Alfred Wegener Institute and the University of Bremen.

[Read in Russian | Читать по-русски](#)

**Radio Canada International**

September 17, 2019

Text by Eilís Quinn

Approximately 3.9 million square kilometres of the Arctic Ocean are covered by sea ice this month, only the second time the annual minimum has dropped below four million square kilometres since satellite measurements began in 1979, the researchers said in a news release

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by The HAARP Report

What are the results of maintaining the stationary High pressure west of California (the RidiculouslyResilient Ridge)?

- 1) Warm, humid air is driven into the Arctic, all winter long
- 2) The American sheeple are kept ignorant about the climate Emergency (runaway global heating)
- 3) Drought, high temperatures, and fire, in California
- 4) Warm water “blob” grows in northern Pacific
- 5) Air over the USA is dehumidified in Canada, decreasing Greenhouse effect over the central and eastern USA
- 6) Kills ocean life by decreasing upwelling off California coast
- 7) melts permafrost in Alaska, Canada and Yukon
- 8) California crops fail, reducing food supply and quality
- 9) Corporations cash in on Arctic oil, and Northern Passage

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Differential Buoyancy Aerosol Spraying (DBAS)  
by The HAARP Report

So, which chemicals can be used for DBAS aerosols?

What scientific criteria are needed for DBAS aerosols?

How did I find the best chemicals?

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These are the best dry powder aerosols:

Hygroscopic?	HEATING	Quantity (J)	COOLING	Quantity (J)
yes	$\text{AlCl}_3$	-80	$\text{AlF}_3 \cdot 3\text{H}_2\text{O}$	+188 !!!!!
yes	SrCl	-12	$\text{NH}_4\text{H}_2\text{AsO}_4$	+4
yes	SrOH	-11	$\text{As}_4\text{O}_6$	+12
yes	$\text{ZnBr}_2$	-16	$\text{Ba}(\text{NO}_3)_2$	+10
yes	$\text{ZnCl}_2$	-16	$\text{BaSO}_4$	+5
yes	$\text{Ba}(\text{OH})_2$	-12	KBr	+5
yes	$\text{Al}_2(\text{SO}_4)_3$	-77	$\text{KBrO}_3$	+10
yes	Al Iodide <sub>3</sub>	-90	KCl	+4
yes	$\text{AlNH}_4-(\text{SO}_4)_2$	-30	$\text{KClO}_3$	+10
yes			KI	+5
yes			$\text{KNO}_3$	+8

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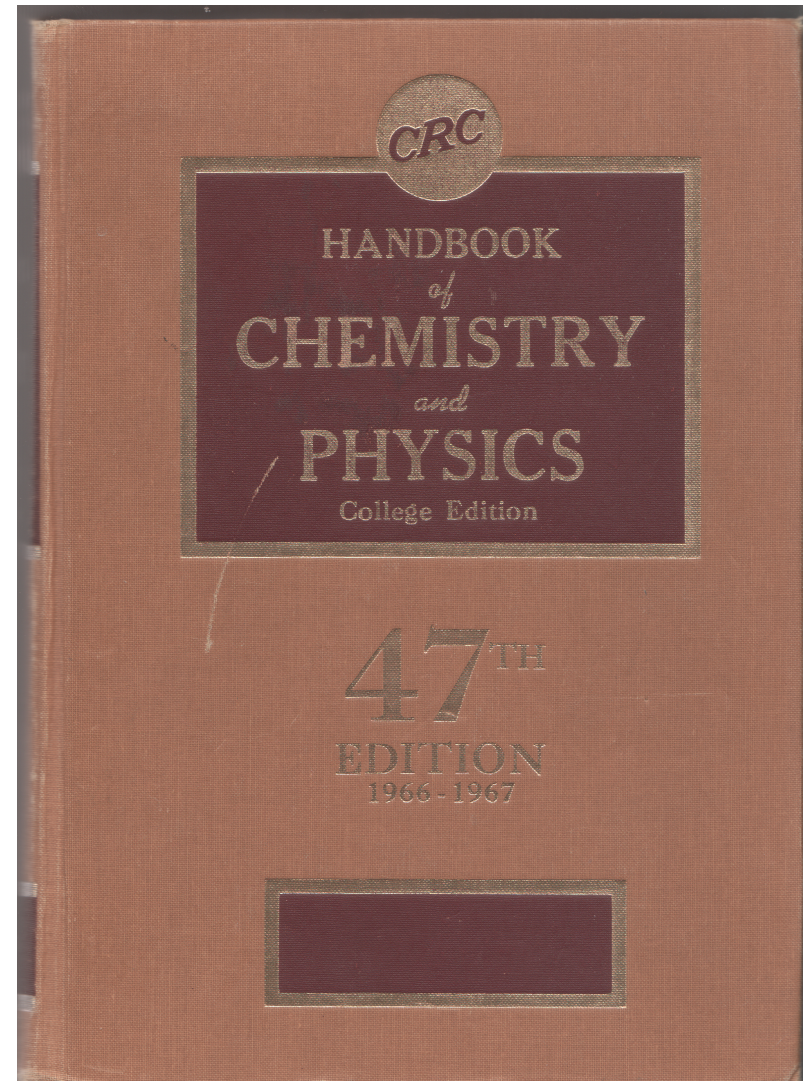
by The HAARP Report

How to find the candidate dry powder aerosols?

A good reference – the 1967  
Handbook of Chemistry  
and Physics, 47<sup>th</sup> edition

By Hess's Law: the sum of the enthalpy  
changes for a number of individual reaction  
steps equals the enthalpy change of the  
overall reaction...

Heat of Solution = Heat of Formation -  
Heat Content in Aqueous state



# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

### HEATS OF SOLUTION

From National Standards Reference Data Systems NSRDS-NBS 2

Vivian B. Parker

$\Delta H_{\infty}^{\circ}$ , 25°C for uni-univalent electrolytes in H<sub>2</sub>O

Substance	State	$\Delta H_{\infty}^{\circ}$	Substance	State	$\Delta H_{\infty}^{\circ}$	Substance	State	$\Delta H_{\infty}^{\circ}$
		<i>cal/mole</i>			<i>cal/mole</i>			<i>cal/mole</i>
HF	g	-14,700	LiBr·2H <sub>2</sub> O	c	-2,250	KCl	c	4,115
HCl	g	-17,888	LiBrO <sub>3</sub>	c	340	KClO <sub>3</sub>	c	9,890
HClO <sub>4</sub>	l	-21,215	LiI	c	-15,130	KClO <sub>4</sub>	c	12,200
HClO <sub>4</sub> ·H <sub>2</sub> O	c	-7,875	LiI·H <sub>2</sub> O	c	-7,090	KBr	c	4,750
HBr	g	-20,350	LiI·2H <sub>2</sub> O	c	-3,530	KBrO <sub>3</sub>	c	9,830
HI	g	-19,520	LiI·3H <sub>2</sub> O	c	140	KI	c	4,860
HIO <sub>3</sub>	c	2,100	LiNO <sub>2</sub>	c	-2,630	KIO <sub>3</sub>	c	6,630
HNO <sub>3</sub>	l	-7,954	LiNO <sub>2</sub> ·H <sub>2</sub> O	c	1,680	KNO <sub>2</sub>	c	3,190
HCOOH	l	-205	LiNO <sub>3</sub>	c	-600	KNO <sub>3</sub>	c	8,340
CH <sub>3</sub> COOH	l	-360				KC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>	c	-3,665
			NaOH	c	-10,637	KCN	c	2,800
NH <sub>3</sub>	g	-7,290	NaOH·H <sub>2</sub> O	c	-5,118	KCNO	c	4,840
NH <sub>4</sub> Cl	c	3,533	NaF	c	218	KCNS	c	5,790
NH <sub>4</sub> ClO <sub>4</sub>	c	8,000	NaCl	c	928	KMnO <sub>4</sub>	c	10,410
NH <sub>4</sub> Br	c	4,010	NaClO <sub>2</sub>	c	80			
NH <sub>4</sub> I	c	3,280	NaClO <sub>2</sub> ·3H <sub>2</sub> O	c	6,830	RbOH	c	-14,900
NH <sub>4</sub> IO <sub>3</sub>	c	7,600	NaClO <sub>3</sub>	c	5,191	RbOH·H <sub>2</sub> O	c	-4,310
NH <sub>4</sub> NO <sub>2</sub>	c	4,600	NaClO <sub>4</sub>	c	3,317	RbOH·2H <sub>2</sub> O	c	210
NH <sub>4</sub> NO <sub>3</sub>	c	6,140	NaClO <sub>4</sub> ·H <sub>2</sub> O	c	5,380	RbF	c	-6,240
NH <sub>4</sub> C <sub>2</sub> H <sub>3</sub> O <sub>2</sub>	c	-570	NaBr	c	-144	RbF·H <sub>2</sub> O	c	-100
NH <sub>4</sub> CN	c	4,200	NaBr·2H <sub>2</sub> O	c	4,454	RbF·1½H <sub>2</sub> O	c	320
NH <sub>4</sub> CNS	c	5,400	NaBrO <sub>3</sub>	c	6,430	RbCl	c	4,130
CH <sub>3</sub> NH <sub>3</sub> Cl	c	1,378	NaI	c	-1,800	RbClO <sub>3</sub>	c	11,410
(CH <sub>3</sub> ) <sub>3</sub> NHCl	c	350	NaI·2H <sub>2</sub> O	c	3,855	RbClO <sub>4</sub>	c	13,560
N(CH <sub>3</sub> ) <sub>4</sub> Cl	c	975	NaIO <sub>3</sub>	c	4,850	RbBr	c	5,230
N(CH <sub>3</sub> ) <sub>4</sub> Br	c	5,800	NaNO <sub>2</sub>	c	3,320	RbBrO <sub>3</sub>	c	11,700
N(CH <sub>3</sub> ) <sub>4</sub> I	c	10,055	NaNO <sub>3</sub>	c	4,900	RbI	c	6,000
			NaC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>	c	-4,140	RbNO <sub>3</sub>	c	8,720
AgClO <sub>4</sub>	c	1,760	NaC <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ·3H <sub>2</sub> O	c	4,700			
AgNO <sub>2</sub>	c	8,830	NaCN	c	290	CsOH	c	-17,100
AgNO <sub>3</sub>	c	5,400	NaCN·½H <sub>2</sub> O	c	790	CsOH·H <sub>2</sub> O	c	-4,900
			NaCN·2H <sub>2</sub> O	c	4,440	CsF	c	-8,810
LiOH	c	-5,632	NaCNO	c	4,590	CsF·H <sub>2</sub> O	c	-2,500
LiOH·H <sub>2</sub> O	c	-1,600	NaCNS	c	1,632	CsF·1½H <sub>2</sub> O	c	-1,300
LiF	c	1,130				CsCl	c	4,250
LiCl	c	-8,850	KOH	c	-13,769	CsClO <sub>4</sub>	c	13,250
LiCl·H <sub>2</sub> O	c	-4,560	KOH·H <sub>2</sub> O	c	-3,500	CsBr	c	6,210
LiClO <sub>4</sub>	c	-6,345	KOH·1½H <sub>2</sub> O	c	-2,500	CsBrO <sub>3</sub>	c	12,060
LiClO <sub>4</sub> ·3H <sub>2</sub> O	c	7,795	KF	c	-4,238	CsI	c	7,970
LiBr	c	-11,670	KF·2H <sub>2</sub> O	c	1,666	CsNO <sub>3</sub>	c	9,560
LiBr·H <sub>2</sub> O	c	-5,560						

<b>Arsenic</b>					
As (gray)	c	0.00	0.00	0.000	8.4
(β)	am	1.0	.....	.....	.....
(yellow)	c	3.53	.....	.....	.....
AsO <sup>+</sup>	aq	.....	-39.1	28.69	.....
As <sub>2</sub>	g	29.6	17.5	-12.83	57.3
As <sub>4</sub>	g	35.7	25.2	-18.47	69
AsBr <sub>3</sub>	c	-46.61	.....	.....	.....
AsCl <sub>3</sub>	g	-71.5	-68.5	50.21	78.2
	lq	-80.2	-70.5	51.68	55.8
AsF <sub>3</sub>	g	-218.3	-214.7	157.37	69.08
	lq	-226.8	-215.5	157.96	43.31
AsH <sub>3</sub>	g	41.0	.....	.....	.....
AsH <sub>3</sub> ·6H <sub>2</sub> O	c	-386.7	.....	.....	.....
AsI <sub>3</sub>	c	-13.7	.....	.....	.....
As <sub>2</sub> O <sub>3</sub>	c	-218.6	-184.6	135.41	25.2
	aq	-224.6	.....	.....	.....
As <sub>2</sub> O <sub>5</sub> ·4H <sub>2</sub> O	c	-500.3	.....	.....	.....
As <sub>2</sub> O <sub>5</sub> ·5H <sub>2</sub> O	c	-1007.5	.....	.....	.....
As <sub>2</sub> O <sub>3</sub> ·As <sub>2</sub> O <sub>5</sub>	c	-351.1	.....	.....	.....
As <sub>4</sub> O <sub>6</sub> (oct)	c	-313.94	-275.36	201.835	51.2
(mon)	c	-312.8	.....	.....	.....
	aq	-299.4	.....	.....	.....
As <sub>2</sub> S <sub>3</sub>	c	-35	.....	.....	.....
H <sub>2</sub> AsO <sub>3</sub>	aq	-177.3	-152.9	112	47.0
H <sub>2</sub> AsO <sub>4</sub>	c	-215.2	.....	.....	.....
	aq	-214.8	-183.8	134.72	49.3
<b>Barium</b>					
Ba	g	41.96	34.60	-25.361	40.699
	c	0.00	0.00	0.000	16
Ba <sup>++</sup>	aq	-128.67	-134.0	98.22	3
Ba <sub>2</sub> (AsO <sub>4</sub> ) <sub>2</sub>	c	-817.8	.....	.....	.....
BaHASO <sub>4</sub> ·H <sub>2</sub> O	c	-411.5	.....	.....	.....
Ba(H <sub>2</sub> AsO <sub>4</sub> ) <sub>2</sub> ·2H <sub>2</sub> O	c	-694.7	.....	.....	.....
Ba(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>	c	-355.1	.....	.....	.....
Ba(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> ·3H <sub>2</sub> O	c	-567.3	.....	.....	.....
BaBr <sub>2</sub>	c	-180.4	.....	.....	.....
	aq	-186.47	-183.1	134.21	42
BaBr <sub>2</sub> ·H <sub>2</sub> O	c	-254.9	.....	.....	.....
BaBr <sub>2</sub> ·2H <sub>2</sub> O	c	-326.3	.....	.....	.....
BaOBr <sub>2</sub>	aq	-181.6	.....	.....	.....
Ba(HCO <sub>2</sub> ) <sub>2</sub>	c	-326.5	.....	.....	.....
Ba(CN) <sub>2</sub>	c	-47.9	.....	.....	.....
	aq	-50.7	.....	.....	.....
Ba(CN) <sub>2</sub> ·H <sub>2</sub> O	c	-120.1	.....	.....	.....
Ba(CN) <sub>2</sub> ·2H <sub>2</sub> O	c	-191.1	.....	.....	.....
BaCN <sub>2</sub>	c	-63.8	.....	.....	.....
Ba(CNO) <sub>2</sub>	c	-209.6	.....	.....	.....
BaCO <sub>3</sub>	c	-291.3	-272.2	199.52	26.8
	aq	-290.30	-260.2	190.72	-10
Ba(HCO <sub>3</sub> ) <sub>2</sub>	aq	-459.0	-414.6	303.90	48
BaC <sub>2</sub> O <sub>4</sub> · $\frac{1}{2}$ H <sub>2</sub> O	c	-363.7	.....	.....	.....
BaC <sub>2</sub> O <sub>4</sub> ·2H <sub>2</sub> O	c	-470.1	.....	.....	.....
BaC <sub>2</sub> O <sub>4</sub> · $\frac{3}{2}$ H <sub>2</sub> O	c	-575.3	.....	.....	.....
BaCl <sub>2</sub>	c	-205.56	-193.8	142.05	30
	aq	-208.72	-196.7	144.18	29
BaCl <sub>2</sub> ·H <sub>2</sub> O	c	-278.4	-253.1	185.52	40
BaCl <sub>2</sub> ·2H <sub>2</sub> O	c	-349.35	-309.7	227.01	48.5
BaOCl <sub>2</sub>	aq	-194.0	.....	.....	.....
Ba(OCl) <sub>2</sub>	aq	-176.1	.....	.....	.....

Ba(OH) <sub>2</sub>	aq	-257.00	-190.0	139.27	51.1
BaO	c	-227.41	-186.8	136.92	73
BaO <sub>2</sub>	c	-133.4	-126.3	92.58	16.8
BaO <sub>2</sub> ·H <sub>2</sub> O	c	-150.5	.....	.....	.....
BaO <sub>2</sub> ·8H <sub>2</sub> O	c	-223.5	.....	.....	.....
Ba(OH) <sub>2</sub>	c	-719.3	.....	.....	.....
	c	-226.2	.....	.....	.....
	aq	-238.58	-209.2	153.34	-2
Ba(OH) <sub>2</sub> ·H <sub>2</sub> O	c	-299.0	.....	.....	.....
Ba(OH) <sub>2</sub> ·8H <sub>2</sub> O	c	-799.5	.....	.....	.....
Ba <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	c	-998.0	.....	.....	.....
BaHPO <sub>4</sub>	c	-465.8	.....	.....	.....
Ba(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub>	c	-749.6	.....	.....	.....
BaS	g	41	.....	.....	.....
	c	-106.0	.....	.....	.....
	aq	-118.4	.....	.....	.....
Ba(HS) <sub>2</sub>	aq	-134.8	.....	.....	.....
Ba(HSO <sub>3</sub> ) <sub>2</sub>	aq	-430.7	.....	.....	.....
BaSO <sub>3</sub>	c	-282.6	.....	.....	.....
BaSO <sub>4</sub>	c	-350.2	-323.4	237.05	31.6
	aq, ∞	-345.57	-311.3	228.18	7
	aq	-409.3	.....	.....	.....
BaS <sub>2</sub> O <sub>6</sub>	c	-552.5	.....	.....	.....
BaS <sub>2</sub> O <sub>6</sub> ·2H <sub>2</sub> O	c	-454.0	.....	.....	.....
BaS <sub>2</sub> O <sub>8</sub>	aq	-738.7	.....	.....	.....
BaS <sub>2</sub> O <sub>8</sub> ·4H <sub>2</sub> O	c	-401.3	.....	.....	.....
BaS <sub>4</sub> O <sub>6</sub>	aq	-554.5	.....	.....	.....
BaS <sub>4</sub> O <sub>6</sub> ·2H <sub>2</sub> O	c	-142.0	.....	.....	.....
BaSe	c	-280.0	.....	.....	.....
BaSeO <sub>4</sub>	c	-359.5	.....	.....	.....
BaSiO <sub>3</sub>	c	-496.8	.....	.....	.....
Ba <sub>2</sub> SiO <sub>4</sub>	c	-407.7	.....	.....	.....
BaWO <sub>4</sub>	c	.....	.....	.....	.....
<b>Beryllium</b>					
Be	g	76.63	67.60	-49.550	32.55
	c	0.00	0.00	0.000	2.28
Be <sup>++</sup>	aq	.....	-93	.....	.....
(in acid solution)					
BeBr <sub>2</sub>	c	-88.4	.....	.....	.....
BeBr <sub>2</sub> (in HCl)	aq	151	.....	.....	.....
BeCl <sub>2</sub>	c	-122.3	.....	.....	.....
BeCl <sub>2</sub> (in HCl)	aq	173.4	.....	.....	.....
BeCl <sub>2</sub> ·4H <sub>2</sub> O	c	-436.8	.....	.....	.....
BeF <sub>2</sub>	aq	-251.4	.....	.....	.....
BeH	g	78.1	71.3	-52.26	40.84
BeI <sub>2</sub>	c	-50.6	.....	.....	.....
BeI <sub>2</sub> (in HCl)	aq	-120	.....	.....	.....
BeMoO <sub>4</sub>	c	-330	.....	.....	.....
Be <sub>3</sub> N <sub>2</sub>	c	-135.7	-122.4	.....	.....
Be(NO <sub>3</sub> ) <sub>2</sub>	aq	-188.3	.....	.....	.....
BeO	g	11.8	5.7	-4.18	47.18
	c	-146.0	-139.0	101.88	3.37
Be(OH) <sub>2</sub>	c (α)	-216.8	.....	.....	.....
	c (β)	-216.1	.....	.....	.....
BeS	c	-55.9	.....	.....	.....
BeSO <sub>4</sub>	c	-286.0	.....	.....	.....
BeSO <sub>4</sub> ·H <sub>2</sub> O	c	-361	.....	.....	.....
BeSO <sub>4</sub> ·2H <sub>2</sub> O	c	-433.2	.....	.....	.....
BeSO <sub>4</sub> ·4H <sub>2</sub> O	c	-576.3	.....	.....	.....
BeSO <sub>4</sub> ·4BeO	c	-871.4	.....	.....	.....
<b>Bismuth</b>					
Bi	g	49.7	40.4	-29.61	44.67



VALUES OF CHEMICAL THERMODYNAMIC PROPERTIES

All values of energy in these tables are expressed, insofar as possible, in terms of the thermochemical calorie, now defined in terms of the absolute joule. 1 thermochemical calorie = 1 calorie = 4.1840 absolute joule = 4.1833 international joule. The notations used in these tables are as follows:

- $\Delta H_f^\circ$  = the standard heat of formation of a given substance from its elements at 25°C., kilo -cal/g mole.
- $\Delta F_f^\circ$  = the standard free energy of formation of a given substance from its elements at 25°C., kilo -cal/g mole.
- $\log_{10} K_f$  = the logarithm of the equilibrium constant for the reaction for forming a given substance from its elements at 25°C.
- $S^\circ$  = the entropy of the given substance in its thermodynamic reference state at the reference temperature at 25°C., cal/deg. mole.
- c* = crystalline; in certain cases where a substance exists in more than one crystalline form there is an indication as to which form is concerned.
- g* = gaseous.
- am* = amorphous.
- aq* = aqueous; unless otherwise indicated the aqueous solution is taken as the hypothetical ideal state of unit molality.
- gls* = glass.
- lq* = liquid.
- ppi* = precipitate.

The values in these tables were taken from Circular of the National Bureau of Standards 500. "Selected Values of Chemical Thermodynamic Properties, issued February 1, 1952.

RELATIONSHIP TO SI UNITS

The symbols cal. mole<sup>-1</sup> deg<sup>-1</sup> and gibbs/mol are identical and refer to units of calories per degree-mole. These units can be converted to SI units of joules per degree-mole by multiplying the tabulated values by 4.184. Similarly values in kilocalories per mole can be converted to joules per mole by multiplying with the factor 4184. For further discussions of the SI system and for conversions from other units the reader should consult Pure and Applied Chemistry, 21, 1 (1970).

55TH Edition, 1974

Substance	State	$\Delta H_f^\circ$	$\Delta F_f^\circ$	$\log_{10} K_f$	$S^\circ$
<b>Aluminum</b>					
Al	<i>g</i>	75.00	65.3	-47.86	39.303
	<i>c</i>	0.00	0.00	0.000	6.77
Al <sup>+++</sup>	<i>aq</i>	1307.44			
AlBr <sub>3</sub>	<i>c</i>	-125.8	-120.7	88.47	44
	<i>aq</i>	-211.9			
Al <sub>4</sub> C <sub>3</sub>	<i>c</i>	-30.9	-29.0	21.26	25
Al(CH <sub>3</sub> ) <sub>3</sub>	<i>lq</i>	-26.9			
Al <sub>2</sub> Cl <sub>6</sub>	<i>g</i>	-303.6			
AlCl <sub>3</sub>	<i>c</i>	-166.2	-152.2	111.56	40
	<i>aq</i> , 600	-245.5			
AlCl <sub>3</sub> ·6H <sub>2</sub> O	<i>c</i>	-641.1	-542.4	397.57	90
AlF <sub>3</sub>	<i>c</i>	-311	-294	215.5	23
AlF <sub>3</sub> ·3H <sub>2</sub> O	<i>c</i>	-549.1	-490.4	359.46	50
	<i>aq</i>	-361.4			
AlF <sub>3</sub> ·½H <sub>2</sub> O	<i>c</i>	-357.4	-333.6	244.52	29
AlI <sub>3</sub>	<i>c</i>	-75.2	-75.0	54.97	48
	<i>aq</i>	-165.8			
AlN	<i>c</i>	-57.7	-50.1	36.72	5
Al(NO <sub>2</sub> ) <sub>3</sub>	<i>aq</i>	-273.65			
Al(NO <sub>3</sub> ) <sub>3</sub> ·6H <sub>2</sub> O	<i>c</i>	-680.65	-525.82	385.419	111.8
Al(NO <sub>3</sub> ) <sub>3</sub> ·9H <sub>2</sub> O	<i>c</i>	-897.34	-700.2	513.24	136
Al <sub>2</sub> O <sub>3</sub> ( $\alpha$ ) <sup>*</sup>	<i>c</i>	-399.09	-376.77	276.167	12.19
( $\gamma$ )	<i>c</i>	-384.84			
Al <sub>2</sub> O <sub>3</sub> ·H <sub>2</sub> O	<i>c</i>	-471	-435	318.8	23.15
Al <sub>2</sub> O <sub>3</sub> ·3H <sub>2</sub> O†	<i>c</i>	-613.7	-547.9	401.60	33.51
Al(OH) <sub>3</sub>	<i>am</i>	-304.2			
Al <sub>2</sub> S <sub>3</sub>	<i>c</i>	-121.6	-117.7	86.27	23
Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	<i>c</i>	-820.98	-738.99	541.670	57.2
	<i>aq</i>	-897.1			
Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> ·6H <sub>2</sub> O	<i>c</i>	-1268.14	-1105.14	810.054	112.1
Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> ·18H <sub>2</sub> O	<i>c</i>	-2118.5			
AlNH <sub>4</sub> (SO <sub>4</sub> ) <sub>2</sub>	<i>c</i>	-561.24	-485.95	356.195	51.7
	<i>aq</i>	-591.74			
AlNH <sub>4</sub> (SO <sub>4</sub> ) <sub>2</sub> ·12H <sub>2</sub> O	<i>c</i>	-1419.40	-1179.02	864.207	166.6
<b>Ammonium</b>					
NH <sub>3</sub>	<i>g</i>	-11.04	-3.976	2.914	46.01

Substance	State	$\Delta H_f^\circ$	$\Delta F_f^\circ$	$\log_{10} K_f$	$S^\circ$
<b>Ammonium</b>					
(NH <sub>4</sub> ) <sub>2</sub> C <sub>2</sub> O <sub>4</sub> ·H <sub>2</sub> O	<i>c</i>	-340.62			
NH <sub>4</sub> H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	<i>aq</i>	-227.02			
NH <sub>4</sub> Cl	<i>c</i>	-75.38	-48.73	35.718	22.6
	<i>aq</i> , $\infty$	-71.76			
NH <sub>4</sub> ClO <sub>4</sub>	<i>c</i>	-69.42			
NH <sub>4</sub> F	<i>c</i>	-111.6			
	<i>aq</i> , $\infty$	-110.40			
NH <sub>4</sub> I	<i>c</i>	-48.30			
	<i>aq</i> , $\infty$	-45.11			
NH <sub>4</sub> NO <sub>2</sub>	<i>c</i>	-63.1			
	<i>aq</i>	-57.1			
NH <sub>4</sub> NO <sub>3</sub>	<i>c</i>	-87.27			
	<i>aq</i>	-81.11			
NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	<i>c</i>	-346.75	-290.46	212.903	36.32
	<i>aq</i> , 500	-342.91			
(NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub>	<i>c</i>	-376.12			
	<i>aq</i> , 500	-373.04			
(NH <sub>4</sub> ) <sub>3</sub> PO <sub>4</sub>	<i>c</i>	-401.8			
	<i>aq</i> , 660	-394.0			
(NH <sub>4</sub> ) <sub>3</sub> PO <sub>4</sub> ·3H <sub>2</sub> O	<i>c</i>	-612.8			
(NH <sub>4</sub> ) <sub>2</sub> PtCl <sub>4</sub>	<i>c</i>	-195.3			
	<i>aq</i>	-186.9			
(NH <sub>4</sub> ) <sub>2</sub> S	<i>aq</i>	-54.5			
NH <sub>4</sub> HS	<i>c</i>	-38.10			
	<i>aq</i>	-35.1			
NH <sub>4</sub> S <sub>4</sub>	<i>c</i>	-34.0			
	<i>aq</i>	-29.7			
(NH <sub>4</sub> ) <sub>2</sub> S <sub>6</sub>	<i>c</i>	-69.4			
	<i>aq</i>	-65.4			
(NH <sub>4</sub> ) <sub>2</sub> SO <sub>3</sub>	<i>c</i>	-212.0			
	<i>aq</i>	-211.3			
(NH <sub>4</sub> ) <sub>2</sub> SO <sub>5</sub> ·H <sub>2</sub> O	<i>c</i>	-284.22			
NH <sub>4</sub> HSO <sub>3</sub>	<i>c</i>	-183.8			
	<i>aq</i>	-181.5			
(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	<i>c</i>	-281.86	-215.19	157.732	52.65

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report

These are the best dry powder aerosols:

Hygroscopic?	HEATING	Quantity (J)	COOLING	Quantity (J)
yes	$\text{AlCl}_3$	-80	$\text{AlF}_3 \cdot 3\text{H}_2\text{O}$	+188 !!!!!
yes	SrCl	-12	$\text{NH}_4\text{H}_2\text{AsO}_4$	+4
yes	SrOH	-11	$\text{As}_4\text{O}_6$	+12
yes	$\text{ZnBr}_2$	-16	$\text{Ba}(\text{NO}_3)_2$	+10
yes	$\text{ZnCl}_2$	-16	$\text{BaSO}_4$	+5
yes	$\text{Ba}(\text{OH})_2$	-12	KBr	+5
yes	$\text{Al}_2(\text{SO}_4)_3$	-77	$\text{KBrO}_3$	+10
yes	Al Iodide <sub>3</sub>	-90	KCl	+4
yes	$\text{AlNH}_4-(\text{SO}_4)_2$	-30	$\text{KClO}_3$	+10
yes			KI	+5
yes			$\text{KNO}_3$	+8

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report



332917-100G	poly btl	100 g	212.50
<b>Aluminum fluoride trihydrate, 97%</b>			
[15098-87-0]	AlF <sub>3</sub> ·3H <sub>2</sub> O	FW 138.02	
density .....	2.88 g/mL, 25 °C		
<b>X</b>	R: 22-36/37/38	S: 26	EC No. 232-051-1 TSCA
236098-100G	poly btl	100 g	26.90
236098-500G	poly btl	500 g	87.20

Reference: Sigma Adrich  
Handbook of Fine Chemicals 2008

- 22: Harmful if swallowed
- 23: Toxic by inhalation
- 24: Toxic in contact with skin
- 25: Toxic if swallowed
- 26: Very toxic by inhalation
- 27: Very toxic in contact with skin
- 28: Very toxic if swallowed
- 29: Contact with water liberates toxic gas

- 30: Can become highly flammable in use
- 31: Contact with acids liberates toxic gas
- 32: Contact with acids liberates very toxic gas
- 33: Danger of cumulative effects
- 34: Causes burns
- 35: Causes severe burns
- 36: Irritating to the eyes
- 37: Irritating to the respiratory system
- 38: Irritating to the skin

26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

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yes			KI	+5
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# How the Ridiculously Resilient Ridge and Polar Vortex are maintained Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report



Corrosive

## Aluminum chloride

[7446-70-0]  $\text{AlCl}_3$  FW 133.34 Merck **13,335**; Fieser **1,24**;  
**2,21**; **3,7**; **4,10**; **5,10**; **6,17**; **7,7**; **8,13**; **9,11**; **10,9**; **11,25**; **12,26**;  
**13,15**; **14,21**; **16,10**; **17,15**

mp ..... 190 °C vp ..... 1 mm Hg (100 °C)

R: 34 S: 28-45-7/8 EC No. 231-208-1 RTECS # BD0525000



► **anhydrous, powder, 99.999%**

TSCA

563919-5G	ampule	5 g	80.10
563919-25G	ampule	25 g	188.00

### 34: Causes burns

- 28: Very toxic if swallowed
- 29: Contact with water liberates toxic gas
- 30: Can become highly flammable in use
- 31: Contact with acids liberates toxic gas
- 32: Contact with acids liberates very toxic gas
- 33: Danger of cumulative effects
- 34: Causes burns
- 35: Causes severe burns
- 36: Irritating to the eyes

37: Irritating to the respiratory system

38: Irritating to the skin

39: Danger of very serious irreversible effects

40: Limited evidence of a carcinogenic effect

41: Risk of serious damage to eyes

42: May cause sensitization by inhalation

43: May cause sensitization by skin contact

44: Risk of explosion if heated under confinement

45: May cause cancer

7/8: Keep container tightly closed and dry

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report

These are the best dry powder aerosols:

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# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report



Harmful or Irritant

### Aluminum sulfate, 99.99+%

[10043-01-3]  $\text{Al}_2(\text{SO}_4)_3$  FW 342.15 Merck 13,365

mp ..... 770 °C (dec.) density ..... 2.71 g/mL, 25 °C

**X** R: 37/38-41 S: 26-39 EC No. 233-135-0 Hygroscopic TSCA  
**X** RTECS # BD1700000

202614-5G	poly btl	5 g	41.10
202614-25G	poly btl	25 g	137.00
202614-100G	poly btl	100 g	398.00

- 37: Irritating to the respiratory system
- 38: Irritating to the skin
- 39: Danger of very serious irreversible effects
- 40: Limited evidence of a carcinogenic effect
- 41: Risk of serious damage to eyes

- 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- 27: Take off immediately all contaminated clothing
- 28: After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer)
- 29: Do not empty into drains
- 30: Never add water to this product
- 33: Take precautionary measures against static discharges
- 35: This material and its container must be disposed of in a safe way
- 36: Wear suitable protective clothing
- 37: Wear suitable gloves
- 38: In case of insufficient ventilation, wear suitable respiratory equipment
- 39: Wear eye/face protection

# How the Ridiculously Resilient Ridge and Polar Vortex are maintained

## Differential Buoyancy Aerosol Spraying (DBAS)

by The HAARP Report

So, if ANY of my theory is correct...

This explains why everyone is sick, why everything is dying, and why large amounts of aluminum have been found in creeks, lakes, soil, tree roots, etc.

Aluminum is an extreme toxin to all living organisms, and has NO PLACE in biological systems. It is a pure toxin!

Also, fluoride is another super-toxin, and it is probably falling from the sky in large quantities. All living things are killed by fluoride!

These two poisons could explain the death of insects, birds, amphibians, and why all living organisms are in a death spiral.

If you are a scientist, please use your training, and lab resources, to test this new toxic aerosol hypothesis. Our Planet is dying rapidly, and we need NEW ideas, and NEW eyes, right now!



# How the Ridiculously Resilient Ridge and Polar Vortex are maintained Differential Buoyancy Aerosol Spraying (DBAS) by The HAARP Report

This video has proceeded in a logical, step-by-step, fashion to decode a VERY LIKELY covert weather control technology.

And, what we have discovered is a grim reality, that EXTREME toxic chemicals are PROBABLY being sprayed by the thousands of tons, over our heads.

We, our children, and all living things are being forced to ingest these merciless poisons, with no possible way to avoid eventual deadly doses.

This video is a wakeup call. Now is the time to ACT OR DIE!

I call for a total boycott on airline traffic, starting in 2020.

That is an essential first step, if you, and your children want to survive.

How the Ridiculously Resilient Ridge and Polar Vortex are maintained  
Differential Buoyancy Aerosol Spraying (DBAS)  
by The HAARP Report

Thank you for watching!

Spread the word!!!

Please help me spend more time on weather research,  
and less time doing donkey work to keep the lights on.

If you think this type of research is critical for our  
survival, please donate to my patreon

<https://www.patreon.com/thehaarpreport>

Thank you, and blessings to all, who work to protect  
the biosphere!

*Relax, breathe deeply, think positive thoughts...  
There is still time to fight back, as long as we organize, and  
take this crisis seriously. Search "Roger Hallam extinction rebellion"  
and listen to Dane Wigington on GeoengineeringWatch.org*