

Innovative Rainmaking Technology is scientifically and practically proven in laboratory cloud chambers, as well as in the atmosphere. This includes as "Laser-induced condensation and formation of water drops in laboratory cloud chamber as well as in the atmosphere up to 75m altitude.

“Artificial rainmaking by using high power laser which initiates endothermic reactions, similar to nature’s lightning phenomenon, onboard Aircraft in the atmosphere”

Innovative Rainmaking Research Association (IRRA Scientist), India

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(Flow Chart on Innovative Rainmaking Technology for Demonstration)

In atmosphere, after lightning, precipitation is formed and heavy rainfall occurs.



This natural lightning phenomenon has been simulated by laser in laboratory cloud chamber and in the atmosphere.



Results obtained are: condensation and water drops formation observed in laboratory cloud chamber and in the atmosphere up to 75m altitude



In lightning, temperature of the atmosphere is ~30,000K. Laser can create this high temperature in the atmosphere. At this high temperature, bonds of N₂ and O₂ of the atmosphere will break and excited N* and excited O* will be formed as follows:



These excited N* and excited O* are very unstable, immediately react following reactions:



Above reactions are endothermic, and therefore take heat (amount mentioned in bracket) from the surrounding atmospheric clouds.



As a result, temperature falls, condensation takes place, natural seeds are formed and it rains in analogous way as rain is created in nature by lightning.



Formation of NO and O₃ in the above two endothermic reactions have been observed in the laboratory cloud chamber in experiment done by laser.



Increase in density of NO and O₃ has also been measured after lightning in atmosphere.

↓
O₃ and NO may undergo various reactions to form HNO₃, NO₃, (H₂O)_n, H. (H₂O)_n etc. compounds that bind water molecules (the value of n, as large as 100) which may also act as seed to create rain.

↓
Carls and Brock did an experiment in which atmosphere was heated up to 1600 to 2800 K. They observed water droplet formation in the atmosphere. Bonds of N₂ and O₂ broke in this temperature range.

↓
IRRA Scientist Group, proposes laser system of specification: 10¹²watt, 800nm, 500mJ, 120fs and 10Hz to create artificial rain in large scale by initiating endothermic reactions on board Aircraft, Laser design creates multiple lightning in the atmosphere.

↓
This method is economical, natural process, harmless, eco-friendly, it can be used at any place and at any time.

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It's most useful for mankind's as "Green revolution in the whole world for all human beings".

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By IRRA Scientists Group, India

We are very happy to wish to nominate the IRRA Scientists group, Sewagram, India who have developed for their excellent research, an innovative method of artificial rain forming. This invention is very much valuable for mankind. This is a great contribution to atmospheric Chemistry. We strongly recommend the IRRA Scientists group, Sewagram India for encouraging research activities.

IRRA Group developed a challenging research work "Innovative rainmaking technology by Laser system similar to natural lightning phenomena in the atmosphere ". This technology is scientifically and practically proven in laboratory cloud chambers, as well as in the atmosphere. This includes "Laser-induced condensation and formation of water drops in laboratory cloud chamber as well as in the atmosphere". IRRA Scientists aim for a "Green revolution in the whole World for all human beings".

Any Government / Institutions / Company are interested for Demonstration on Rainmaking Technology, IRRA Scientist Groups are very pleasure to work with them.

IRRA Scientists proposes laser design system of specification: 10¹²watt, 800nm, 500mJ, 120fs and 10Hz to create artificial rain in large scale by initiating endothermic reactions on board Aircraft, Laser design creates multiple lightning in the atmosphere. Laser design, estimate budget, work plan etc. are ready with IRRA Scientists for demonstration "Artificial rainmaking in large scale by using high power laser which initiate endothermic reactions, as similar natural lightning phenomenon, onboard Aircraft in the atmosphere" It's most useful for mankind's "Green revolution in the whole world for all human beings". Please let us know, if you have any suggestion / queries / questions, contact! without hesitation to IRRA Scientists

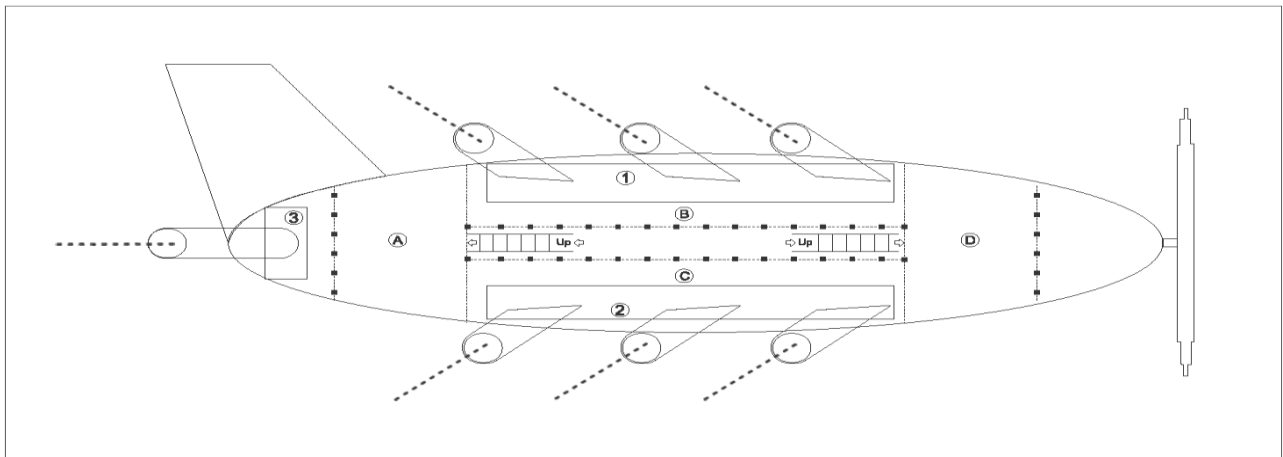
“Figure for Demonstration on Rainmaking Technology”

“Artificial rainmaking by using high power laser which initiate endothermic reactions, as similar natural lightning phenomenon, onboard Aircraft in the atmosphere”

Fig. 1 - Aircraft for making artificial rain in large scale by laser system in the atmosphere:



Fig. 2: “Position of Laser system and other instruments inside the aircraft design:



Note: * In figure No. 2, on first floor, height 9', shown parts (1), (2) and (3) are high power Laser release system which creates multiple artificial Lightning in the upper atmospheric clouds directly by Laser system

* In figureNo.2, on second floor, height 7' 6", shown parts (A),(B),(C) and (D) with stair case are high power generation system for high power Laser system, with railing for open space as shown square dots

“Request for Help”

Now days, IRRA scientist group are struggling with funds for research activities. Your little help may be most useful for “Green revolution in the whole world for all human being”. Your co-operation is solicited.

With best regards

Yours faithfully

IRRA Scientist Group

Bank Account Details

1) Bank Name-CENTRAL BANK OF INDIA, MIDC SEWAGRAM ROAD--442102, Warud, Dist.-Wardha. (Maharashtra.), India.

Bank A/c Name: - Innovative Rainmaking Research Association, Sewagram, Dhanvantri Nager-30, Bank A/c No. 3806623156, IFSC Code No.: - CBIN0282189,

2) Bank Name-CENTRAL BANK OF INDIA, SEWAGRAM BRANCH--442102, Warud, Dist.-Wardha. (Maharashtra.), India.

Bank A/c Name: - International Rainmaking Research Academy, Sevagram, Dhanvantri Nager-30, Bank A/c No. 3841144252, IFSC Code No.: - CBIN0280697



INNOVATIVE RAINMAKING RESEARCH ASSOCIATION



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Please visit our YouTube Channel and search "Novel Technology for Artificial Rainmaking". Click here: - <https://youtu.be/UYfuH9fAmUs>

More details can be found in Google Search: as “Artificial rainmaking by endothermic reactions” or S.K. Chopkar or on the website: <http://www.irraindia.org>.