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E09

How many records and fields are there and What is the range of values for each field?

* There are records of 38 satellites with the DOA and maneuvers. DOA files have 8 fields in them, maneuver files have 6 fields in them
* DOA Fields and range:

| **Field** | **sat\_id** | sat\_name | norad\_id | primary\_rx\_time | primary\_ant\_id | secondary\_ant\_id | tdoa | fdoa |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Range** | **Id no range** | Name no range | Id no range | Date, no range,  Down to seconds | Id no range | Id no range | 0-1 | -4 to 4 |

* Maneuver Fields:

| **Field** | **sat\_id** | sat\_name | norad\_id | start\_time | end\_time | reset |
| --- | --- | --- | --- | --- | --- | --- |
| **Range** | **Id no range** | Name no range | Id no range | Date, no range,  Down to seconds | Date, no range,  Down to seconds | True-False Range |

Are the records subdivided in some meaningful way?

* The records are subdivided into different satellites as well as maneuver and DOA

Is there any missing data?

* Process time of the two signals could be helpful.

What are the critical inputs from the data to ML models you may explore, and what will be the output(s)?

* The critical inputs seem to be the tdoa and fdoa fields as well as the start and end time of each detected maneuver.
* The output of the trained data would be if a maneuver has happened (T or F), how large the maneuver was, and declaring if the maneuver was strange given the data