Example of returns of other serial:

Normal points from Apollo XV in night
Friday 13 (13/14 February 1998)

Team's members: Mangin Jean-François; Feraudy Dominique; Furia Maurice; Glentzlin Monique; Journet Alain; Torre Jean-Marie; Vigouroux Gérard.

Observatoire de la Côte d'Azur / CERGA / LLR - Avenue Copernic 06130 Grasse.
When Dream and Reality meet at the OCA/CERGA LLR station.

This happened on a clear winter night when images of the Moon and the stars were very steady and the outside humidity not above 20%.

That night, results on the lunar reflectors exceeded our most wild expectations: during a serial of ten minutes we netted one return for every ten laser firings!

In every shooting an energy of 250 mJ in green was distributed over four narrow pulses. In similar conditions the best scatter measured on calibration corner cubes is never less than 70 ps. Thus allowing for the orientation of the Apollo XV reflectors this night and for the high level of noise just two days after full Moon, one could not expect better than 100 ps in the actual ranging.

However the actual scatter on normal points over ten minutes was only 20 ps while the peak to peak of individual measurements over a long series was just of 100 ps as seen in the data processing made by J. Chapront and his team at the Paris Observatory.

What or who was acting behind the scene? We will never know what really happened on this strange night of Friday 13 (February 1998).

Example of the best serial:
on left histogram with 4 pulses and noise, on right after foldering.