Criticism of Payne's writings

In spite of a laudatory bibliography (according to his children) that is easy to find on Internet, the works of Peter R. Payne concerning pop-pop engines (or pulsed water jets) are not impressive. It is said that Mr Payne and his company "Payne, Inc." got money for years from *US Navy* and *Energy Department*. To justify the usefulness of these donations and to get some more ones, Mr Payne had to publish documents and to do conferences. At that game it seems he was excellent, but what do we find in his writings?

- Many ideas, formulas, pieces of patents…invented by others. Nevertheless, it must be confessed that Mr Payne said who wrote what. But he could have an ulterior motive in doing that: to improve an apparent credibility.
- Many assumptions (*assuming that… It is presumed that…*) allowing to building demonstrations which really are not.
- Impressive equations for the layman, but having sometimes a very remote connection with the subject.
- Laws of physics that are invented, or that are well known but modified to justify the result of experiments. Ex: $\pi^2/4=2.47$ becomes 2.0 without justification.
- Curves which don't go through measured dots…though these dots follow sometimes a well known law.
- A beautiful curve (fig 13 in doc 749153) going through many dots which in fact could be only one dot if we take into account the uncertainty of the measurement.
- Hairsplitting around simple experimental laws to make they become complicated.
- Gratuitous assertions (ex: P-V diagram) or false ones (ex: *in McHugh engine some water is trapped because the tube is raised above the floor of the boiler)*.
- Efficiency prospects which are very very optimistic, though decreasing with years.
- Technical non-senses. Ex: *to evacuate air, a relief valve suffices*. This would mean that the presence of air increases the max pressure in the cycle. On one hand it is not proven, and on the other hand if it was true it would be better to trap air inside.
- Reuse from one year to the next one.
- Patents enlarged to non realistic possible applications: diverging nozzle, thrust control valve…
- Truths hidden for layman. Ex: *with a 1" pop-pop engine, a 14 foot aluminum (=light) rowboat reached a speed of 1.0 ft/sec*. With more common units for non Americans, knowing that the speed evolves with the cubic root of the power, and knowing that such a boat reaches approximately 20 km/h with a 4 kW engine (5.5HP), one thousands of a horse power (less than 1 Watt) suffices to reach 1 ft/sec. And if the wind blows in the right direction….

This means that only few new and useful things could be gotten from Mr Payne's publications. Yet, according to the enormous means which were available to Payne Inc. some points might have increased the knowledge we have of the pop-pop engine. It's a pity!...