MEMORANDUM

Date 6/14/76

From the desk of:

Morton Amster

To:

Marvin Minsky

Re:

General Turtle, Inc.

The purpose of this memorandum is to briefly summarize the undersigned's reactions to the status of General Turtle, what has to be done to straighten out that status, and once completed, to suggest an approach pursuant to which it should be possible to raise adequate financing for the company.

It is difficult to specifically determine why Gulf & Western did not demonstrate some level of enthusiasm during the recent meeting, but one contributing factor must have been the apparent disorganization of General Turtle, including its complex relationship with General Turtle Corporation, Ltd. of Canada, which, on the face of the literature used at the recent Computer Show, arguably is the owner of some right, title and interest in and to the TT2500 terminal system.

Day 2/24/76

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It is difficult enough to raise money for a new venture without introducing unneeded complexities; and therefore, I would suggest that the first order of business be to straighten out these relationships. I am not suggesting that they must be resolved (e.g., retire debt to General Turtle, Ltd.), but at the very least, that a letter agreement be entered into stating the parties' understanding of the existing relationship (or lack of existing relationship) so that a potential investor can be given a straightforward answer.

Second, potential investors, with any degree of sophistication, are always wary of situations which arise out of what could be characterized as moonlighting, vis-a-vis the employer of the entrepreneurs. Here it has been indicated that MIT encourages its staff to engage in outside activities on a one-day-a-week basis, and claims no rights in and to the product and technology of General Turtle. Necessarily steps should be taken to document this position of the university, both generally, and if practical and feasible, specifically. Generally, this policy statement must be written down

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some place by MIT; and a copy of that policy statement should be obtained and be available to show to potential investors. Further, if practical, it would be specifically useful to have some sort of letter from someone in authority at MIT acknowledging that the principals of General Turtle are free to proceed in this private endeavor.

Next, I think it's important that any potential investor understand that the key people who are required to make this business go although engaged in ostensibly full-time activities on behalf of MIT (or others) will be available as required to keep the company in the forefront of its area of technology; and that the remaining talent can be purchased. Thus, brief biographies of each key person who is a stockholder should be prepared, and some sort of letter agreement written as between such stockholders and General Turtle stating their understanding as to time which will be allocated to the business of General Turtle, compensation, if any, etc. Further, as to Alan Papert,

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the one active employee-stockholder, his expertise and function ought to be fully explained. Finally, in this area, there should be an indication as to how the requisite additional talent to operate on a day-to-day basis can be acquired.

Next, as to the ownership of General Turtle, it would obviously be to its benefit to have the corporate stock held only by those now actively engaged in trying to make the business succeed and those who have made monetary investments for their interest in the company. Although I recognize that it is not possible for the company to buy out non-active stockholders, these people should be approached, advised of the company's dire condition and requested to give the company a long-term option to purchase their stock interest for a nominal consideration, along with the right to vote the stock to consummate any current business transactions. In other words, the active principal stockholders should be in a position to make a corporate decision without necessarily consulting minority stockholders; and as to those minority stockholders

who have made no capital investment, the principal stockholders should be

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in a position to buy them out over some reasonable period of time (e.g., two years) at a comparatively nominal consideration. It is difficult for me to envision that any potential investor would be interested in carrying along non-working stockholders such as Russ Noftsker, Cynthia Solomon and and Howard Austin. The continuance in a stock position of previously active investors such as Levin and Corbeil is understandable; and obviously these people would have to be consulted in trying to restructure the present stockholding of General Turtle to be able to make a deal with a potential investor.

Obviously, an investor is going to have to come to grips with the deficit capitalization of General Turtle which is now represented by a debt, approximated at \$75,000.00 to suppliers and professionals; and a further debt to Jules Pepin, which is estimated at \$73,000.00. Reliable schedules should be prepared as to this existing debt; and the suppliers, professionals and Pepin should be approached to determine first, what they will take in settlement of the debt; and

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second, the terms of payment. Any realistic supplier, professional or lender to General Turtle, when confronted with its current financial condition will realize that they must settle for something less than dollar for dollar, and then over some period of time. The bottom line of such discussions, which, should be, somehow or another, acknowledged by writings, will become the basis for paying out existing creditors over some period of time and will be reflected in the cash flow requirements of any plan presented to a potential investor.

So much for housecleaning -- and the remainder of this memo will be devoted to trying to define the on-going programs of General Turtle which become the basis of the business plan for the company.

Building Of Graphic Terminal Systems

In a general way, I have been told that it should be possible to build twenty terminal systems if the parts in inventory are supplemented by additional parts at a cost of approximately \$25,000.00 with a labor

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Building Of Section Tenninei Bystern

In a general way, I have been told that it should be cossible to build twenty terminal systems if the parts in inventory are supplemented by additional carts at a cost of accurately 325,000.00 with a labor

cost per machine of \$300.00 to \$400.00. Alan should promptly determine the parts inventory, firm-up the cost of the added parts (to be paid for C.O.D.), and firm-up with Canada (or elsewhere, if appropriate) what it would cost to build twenty machines per some reasonable schedule. This activity should result in a firm number to build a stated group of machines within a stated period.

Placement Of Terminal Systems

1. In General

The fact that three general areas for machine placement ds discussed in this memorandum does not mean that these are the only areas or the best areas. Obviously the programs which the company should undertake at the outset are those which will result in early and continuous sales. cost per machina of 3500.00 to 3400.00. Also should promptly determine the nexts inventory, firm-up the cost of the added parts (to be raid for 0.0.0.), and firm-up with Ospeda (or elsewhere) IF Appropriate) what it would cost to build twenty machines per some reasonable schedule. This activity should result in a firm number to build a stated group of machines within a stated period.

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2. Handicapped Market

If we are correct in identifying the seriously handicapped children as the most dramatic (and probably easiest) market to penetrate, then we ought to come up with a concrete and well-documented proposal to move forward in this area with a designated number of terminal Assuming that Crotched Mountain Institute is considered to systems. be a leader in rehabilitating severely handicapped children, a hard and fast program should be laid out to move forward with such institute to develop the necessary evidence of success (to be published) and camera-ready materials for the necessary training aids to go with the equipment as well as the special hardware needed to deal with the main types of physical handicaps encountered. In other words, a proposal should be made which, if gone through with some major institute for handicapped children, would result in dramatic evidence of success and a complete package ready to place into other institutions.

You have indicated that this particular program probably could be funded as follows:

Paul Goldenberg \$ 7500.00;
A Programmer 2500.00;
An Editor 2500.00;
Production of CameraReady Program Materials 10,000.00; and,
Special Hardware 5,000.00;

and that the program could be completed within six months of having available terminals. Obviously these numbers were off the top of everyone's head and someone should do their homework to come up with a complete identification of what should be done and what it will cost to do in developing this program as well as statistics as to the size of the market -- and last, but not least, the selection of the institute to work with and an indication from them that they are ready and willing to go forward with the program.

Also, if feasible within the next few weeks, someone ought to get on the pipe with the various groups that are interested in helping the handicapped, both federal and non-profit, and determine what is

available for research development and funding of capital equipment.

3. Computer Science Departments

You have indicated that two units placed in a van could be moved around over a period of six months to computer science departments of major universities; and we estimated a budget for this activity of about \$20,000.00. You have also stated that the program materials which will be generated would be available to General Turtle -- perhaps at a modest royalty.

This whole area ought to be looked into down to such details as the names of the universities that have such computer science departments and a game plan for covering them within a reasonable period of time.

Also, alternatives such as setting up a seminar (preferably paid for) and offering the same to these institutes in the Boston area sometime within the next six months to bring representatives of these

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of General Turtle. Is it unrealistic to think that instead of requiring an expenditure in this area for hiring a van, equipping it, etc. that one could turn this into a money-making or break-even activity for the company?

4. Penetrating The High School Market

It has been indicated that high schools in Minneapolis,
Minnesota, Wilmington, Delaware, Washington, D.C. and New York, New
York would be very much interested in obtaining some terminal systems
for their use -- and information could be harvested from these locations
which would be helpful in development of potential curricular for
this large market.

In coming up with a proposed business plan, would it
be possible to determine on what basis the school systems would be
willing to work? For example, after the initial success at the Harbor
School in Harlem, could we firm-up an understanding with the school that

computer science densarrments to Boston to Learn about the capabilities of Ceneral Surtle. In it unrealistic to think that instead of requiring on expenditure in this area for himing a van, equipping it, etc. that one could turn this into a money-making or bresk-even activity for the company?

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time at a particular rental and agree to make their program available for visitation, a short movie, etc.? In other words, rather than speculate as to whether dollars have to be spent in this area or not, can't we come up with at least a tentative plan?

Similarly, in developing curricula materials for high school programs, we have talked about assembling a faculty who would proceed with preparing at least outlines for kits relating to programming, physics, math, geometry, music, behavioral biology games, etc. been indicated that this program would have to be delayed until such time as a completely self-contained mini-computer is developed since the cost of going on a time-sharing system with the present terminal would be excessive. Obviously, a completely self-sufficient unit would be highly desirable and incident to this proposed activity, the short term cash flow budget for the next six months should include this program as an essential on-going element.

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5. General Overhead

In projecting overheads for the next six, twelve and eighteen months, a reliable estimate should be made which would include Alan's salary, rent, other office expenses, secretarial to the time needed, computer time, etc.

6. Protection Of The Property Rights Of General Turtle

Any investor coming into this will have a number of questions in the following areas:

- 1. How are the key personnel of General Turtle Locked into the company? Obviously this means that there should be some sort of written agreements between Minsky, Papert, etc. with General Turtle spelling out their relationship.
- 2. What steps have been taken to protect the hardware?

 Here, we can be of assistance in that once we are taught

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as to what is unique or potentially unique in the computer, we can make a recommendation as to whether or not it is possible to protect the same. Shortly we will supply you with the key legal decisions of recent times which deal with protection of computer systems so that you can prepare a disclosure which would enable us to evaluate the patent potential. Since the first units which incorporate the current technology were not placed on the market until February of 1976, and prior units were experimental and are now obsolete, we have until February, 1977 to explore and complete obtaining patent protection.

3. Has the trademark "GENERAL TURTLE" been protected?

We can answer this question. Perhaps, however, there
is a more basic question -- Is this the best name for
the company or should it be renamed along the way to
something like "Dynamic Graphic Systems, Inc.".

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something like "Dynamic Graphic Systems, Inc.".

- 4. What has been the experience of the company
 with the units already placed? Here there are a
 number of things that can be done immediately including:
 - (a) Collect materials relative to the use,
 success, utility, etc. of the machines in
 population in Canada, including those at
 the University of Quebec, University of
 Montreal, University of West Ontario;
 - (b) Obtain a summary of the success of the program at the Harbor School and an evaluation from key people at that high school;
 - You apparently were successful in Lexington,

 Massachusetts; and that success is in Seymour

 Papert's movie. Something in writing should

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In sum, what we have to put together is business information and a business plan which is as easy to see and appreciate as is possible.

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