

IV TAWALA'S LAST REDOUBT

A TALE OF
THE

GALACTIC

SAGA



Brøderbund Software
Eugene, Oregon

TAWALA'S LAST REDOUBT

A Tale of the Galactic Saga



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Many thanks to the many who contributed to this program, in particular to Bryan Crouch, who designed the messenger and end game routines, and to Sirius Software and On-Line Systems for their fine graphics packages, which I made liberal use of.

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The Story

This is the fourth tale of the Galactic Saga. The first three episodes traced the early life of Julian du Buque of Sparta, starting with his appointment as commander of the armed forces of Tawala Mundo, Emperor of the small world of Galactica.

GALACTIC EMPIRE followed du Buque's efforts to conquer the 20 inhabited worlds of the Central Galactic System and join them all into a single empire under the rule of Prince Tawala.

Upon successfully completing this assignment, du Buque was cashiered (for reasons which were never fully revealed), and in GALACTIC TRADER we participated in du Buque's effort to use his substantial planning and logistical skills in the world of trade.

Prince Tawala had not been blessed with any such skills and so was hard put to keep together the empire which du Buque had gained him. GALACTIC REVOLUTION is the story of Tawala's overthrow in a revolt sparked by the discontented merchant class and ultimately led by Julian du Buque.

Upon his defeat by du Buque's forces, Tawala fled Galactica and for a time disappeared from view. It is at this point that the fourth episode begins.

She is known to most historians as Lorato, which means love. Her name is inextricably entwined with that of Julian du Buque, and indeed their partnership is a fixture in any tapestry of the history of our people. But few know that this name was not the one given her. She took it for herself when she left Farside with du Buque.

Before then she was Benthí, earth woman, fire and steel, the rebel leader who led her small band against the still-powerful forces of Prince Tawala on the remote planet of Farside. Her origins are known, for she wrote of them herself in a diary which she always referred to as "my confessions." Indeed, there is little in the life she led as Benthí which we would wish upon our own daughters — even the small excerpt from her diary which is appended hereto may not be suitable reading for the young. Benthí was by all accounts the coldest woman imaginable, except in the heat of battle. Although not one of them, she led her band of blue-eyed aborigines with a ferocity that seemed to elicit from them a loyalty based half on fear and half on respect. It would not seem that this was her battle to fight. Yet none doubts the depth of her animosity towards Tawala and his cohorts.

She came to Farside with her young husband, Thloka, intending to become farmers. Farside was a newly opened planet, and land was cheap and plentiful. The aborigines, a light-skinned, blue-eyed people, were indentured to the farmers and performed the hardest tasks, essentially as slaves. Even the poorest outworlders had five or ten of the aborigines to serve them — this peculiar state of affairs often existed for a time on newly colonized worlds.

Their foreman was a huge native called Rick. He fled the farm after committing a capital offense and joined a small band of guerrillas in the hills, who hoped to free their countrymen from the yoke of these star-flung oppressors by raids upon the farms and weaker outposts.

When Benthil left her farm and attempted to join the rebels, she found Rick in charge. Although suspected at first, she was finally accepted into the cadre and when Rick was killed in an ambush, she took command of the group. The story is told that she taunted her nearest rival into a suicidally dangerous raid, but this seems out of character. And no one denies that she was an unparalleled leader, a brilliant tactician and an utterly ruthless opponent.

She beat Tawala in the end of course, joined by the bandit Vylourmani in the final battle of Mallard Pass, where Tawala was cornered and killed. It was only after the Redoubt had been seized that du Buque managed to break the barrier of isolation which Tawala had cast around Farside and to land his forces on the planet.

Farside brought these three together, two fighting men and a fighting woman. And from Farside too came the discovery that broke them apart, taking one on a quest across the universe for a gift sought through all ages, and the other two on a journey into themselves, a journey taken by countless others for as long as man has loved. But these are other stories, to be told another time. This one has been too long in the telling as it is.

The Game

Place the program disk in your disk drive and turn the computer on. After a short pause the program name will appear and, underneath it, the question, "HOW QUICKLY DO YOU WISH TIME TO PASS ON TAWALA'S LAST REDOUBT? Your answer to this question will set the speed of the clock which controls all the activities of the game (although you can recalibrate the clock from within the game quite easily). The speed scale runs from 1 (very slow) to 9 (very fast). Three is suggested as a good starting speed for most games, although you may set it slower if you are just beginning.

Once you have selected game speed, press =RETURN=, You will now see:

- 1) NEW GAME
- 2) RESTORE PREVIOUS GAME

1 2

Pressing = 1 = will continue immediately to game setup. If you have played previously and want to continue the same game from the point at which it was last saved, press = 2 =. You will then see:

**ENTER NUMBER OF GAME (OR PRESS
<RETURN> FOR NEW GAME):**

R 1 2 3 4 5 6 7 8 9

Press =R= if you had intended to ask for a new game and made a mistake. Otherwise choose the number under which you saved your game previously, press that number and then =RETURN=. As you may imagine, the program can save up to nine games simultaneously. After loading the first game module, the computer will prompt you to insert your data disk. When finished, it will ask you to replace the program disk.

Now settle down for a fairly long wait. The disk will whirl and clack for a while, stop to do some start up computations (and play you a little ditty, just so you know it hasn't gone to sleep), and then finally load up the game. If this is a new game, you will find yourself located at Benthí's Camp, with the mountains in the background and her tent off to the right. Your location (Camp) is displayed in the upper left-hand corner of the screen. The time and date appears in the upper right-hand corner, and three controls appear in the lower right part.

These are M)essenger, I)ntelligence, and O)rders. The right parenthesis indicates that each of these functions can be called by typing only the first letter of the word. This list of three functions is called the "Master Menu" from now on.

Before settling into a discussion of the control functions, there are a few things you should know about the program. First, there are lots of things going on that you don't control. The fiendish usurper, also known as Prince Tawala, will soon start sending out raiding parties from his stronghold. If you leave the computer at this point and go have dinner, you are likely to find the game over by the time you return, your forces ambushed and decimated, with nothing left on the screen but a lone saluting sentinel standing under the stars. If this does happen to you, press any key on the computer and the words "PLAY AGAIN?" will appear on the screen. Pressing Y)es will restart the program from the beginning and save you the trouble of rebooting.

Second, you can alter the speed of the clock on the screen. In real life, you are stuck with whatever time sense your metabolism gives you, and you may find that most events consist of nine parts unremitting boredom to one part terror, pleasure, or hope. The computer allows you to step outside these real life constraints. Typing any number while the Master Menu is on the screen will change the clock speed. For example, if you are very anxious to witness your own demise, press =9= and sit back. The hours will whirl away and in no time at all, Benth) will become a footnote in Farside history books.

There aren't many sound effects in the game, but some people prefer to suppress the clock ticks, especially in the games played at high speeds. Pressing the CONTROL button and then the =Q= key (referred to hereafter as =CNTRL Q=) will suppress them, at least for a time. =CNTRL S= will bring them back.

If you would like to save the game configuration you have been given before you start play (or at any point during the game), press =Q=, for Q)uit. You will then be asked to choose a number from 1 to 9, and the game will be saved under that number. If you want to quit, but don't want to save your game, just turn the computer off. Works every time.

Now we are ready to take you through a tour of the control keys. Rather than taking them in the order in which they then appear on the screen, we will treat them in the order you might expect to use them in a game. The last page of this booklet has an outline of all the control keys for quick reference.

The Master-Menu: Intelligence

You have little information at the beginning of the game, other than your location and the time of day. It would be a good idea to get oriented. The only place to start is with your intelligence officer, Chief Paoli. Press =I=. This invaluable man keeps on his person or in his head all sorts of vital information. He has the only map of the area. He has dossiers on every person and everything under the sun. And he even has a couple of assistants who can run out and get more information if what he has isn't enough!

Let's start by taking a look at the map. Press =M=. Benthí's Camp is located at the bottom part of the screen. Underneath the word CAMP you should see three green symbols followed by numbers. The top symbol represents a rifle, the middle one a coin and the bottom one a soldier. As you can see, Benthí has one hundred troops at her disposal but only one hundred Credits and only enough weapons for fifteen of her men. Tawala is located in the upper left corner of the screen. If you had an agent in the Redoubt, Tawala's strength there would also be shown on the map. Tawala's assets are displayed with red symbols. Red and green are impossible to distinguish on most black and white television sets. However, when Tawala's resources are shown, the world AGENT will also appear next to the same location, indicating the presence of one of Chief Paoli's spies. (Incidentally, this map will not automatically update itself while you are watching it — it only reflects dispositions in effect at the moment it is called to the screen.)

To get a feeling for distances on this map, press =C= for Camp and then =H= for Hollywood. Small arrows should appear next to both names and the words "7 hours" should appear in the lower left corner of the map, framed by a box. This is the amount of time it would take a messenger to run from Camp to Hollywood (it would take an armed force twice as long to cover the same distance). Try other combinations of letters. When you are satisfied that you have seen enough of the map for the time being, press =R= or =RETURN= to return to the list of Chief Paoli's functions. Use either of these two keys whenever you want to back out of a routine or to return to the previous menu of controls. For example, if you press =R= one more time, you will dismiss Chief Paoli and find yourself staring at the Master Menu once again. (If you actually did this, press =I= to get back to Chief Paoli. We aren't done with him yet.)

One of the first things we need to do is to send Paoli's two agents where they can observe the movements of Tawala's troops and

report these movements back to us. If we like, we can even try to infiltrate an agent into the Redoubt to report to us on Tawala's overall strength. There are two drawbacks to this: one, the risk of exposure and capture is far greater inside the Redoubt itself; and two, there is no way to recall an agent who has been sent all the way into the lion's den. Sooner or later, he is bound to be exposed. We must weigh the value of his information against the certainty of his future loss.

However, in our first game it would be advantageous to know Tawala's exact strength, even at the cost of one of Paoli's two agents. So press =S= for S)end agent. Paoli will then ask you where to send his spy. Press =T= for Tawala's Redoubt. Paoli will send the agent off immediately and with luck he should start reporting back in about 16 hours (the length of time it takes to run between Camp and the Redoubt). It would also be advisable to station an agent at Janus, the interior crossroads city through which all of Tawala's forces must march on their way to other destinations.

Next we must concern ourselves with building up the strength of Benthis tiny force. Obviously the first concern is to secure arms for the unarmed men in the cadre, then to increase the overall strength of the force. There are several ways to do this. Tawala is rumored to have buried an arms cache for use by his men if they should ever be cut off from the Redoubt. We will have to rely upon Chief Paoli's agent to uncover the location of this cache and the code word that unlocks it. Also, the brigand Vy!-ourmani has a substantial band of armed men. If he can be located and the password for entry into his camp discovered, he might be persuaded to join in the fight against Tawala, for whom he has no love. Again, we can do little until we receive additional intelligence from Paoli's spies.

What we can do immediately is look for support among Farside's village chiefs. Four chiefs control the villages in this part of Farside: Anson, Beonj, Covoi, and Dumas. Paoli has a dossier on each one, and any approach should take into consideration the personal characteristics of the Chief whose favor is sought. Press =D= for D)ossiers and, when the word FILE appears, press the first letter of the name of the person whose dossier we want. Pressing any key will 'page' through the dossier until it is finished and the Intelligence Menu reappears. If we desire specific information about any of the towns, pressing =G= and then the first letter of any of the village names will reveal current information on the local population and economy, as well as the identity of the village Chief.

It is not the purpose of these rules to instruct the reader how to evaluate the information presented, nor to reveal the 'correct' approach to be made in every case. Therefore, the following examples are intentionally vague. It is your responsibility to determine the tactics which led Benthis to ultimate success.

The Master Menu: M)essenger

Press =R= or =RETURN= until you are returned to the Master Menu. Then press =M=. On the right side of the screen four names will appear. These are your four messengers. Press the letter =L=. The messenger Lanai will cross to the tent, salute, and prepare to receive your orders. First of all, you must tell him for whom the message is intended. Messengers may be sent with offers to the four village Chiefs. They also may be used to convey instructions to Benth's forces stationed in various villages (for example, to tell one of Paoli's spies to return to Camp). Let's assume for the present that you wish to convey an offer to Chief Dumas. Press the letter =D=. The following should then appear on the screen:

Options:

N)othing

M)oney

Offer him. . .

If you press =N=, Lanai will carry no money to Dumas. If you press =M=, the bottom line will change to read:

Offer him money, specifically:

You will then be expected to enter a sum of money, less than the sum on hand (you may recall from viewing the map that you started with 100 CR), which sum Lanai will take with him for transfer to Chief Dumas. This sum can be viewed as payment for the goods you will request or as a bribe. There is little likelihood of the money being returned if your request is refused. In deciding whether or not to offer the Chief money in return for his assistance, please examine Dumas' personality profile carefully! One note about entering sums: type the numbers in slowly — there is a good deal of processing going on during keyboard entry, and if you type too fast, some of the numerals can be lost. If you make a mistake, you can use the left arrow to backspace. When you are finished entering the number, press =RETURN=.

At this point the following screen should appear:

Options:

A)rms

M)oney

T)roops

**Tell him we
require. . .**

You must select the type of goods you wish to have delivered. (Do not try to buy money. Your messengers have very deep-seated notions of propriety.) You must then enter the quantity of goods you would like. All three commodities have intrinsic values which do not change: rifles are worth 5 Credits each, soldiers 3 Credits, and Credits (not surprisingly) 1 Credit exactly. This information may or may not be of any value.

You must then tell the messenger where to return with the goods, provided he is able to acquire them. If you plan on moving your base of operations to one of the villages, you might prefer to have the goods sent directly there. Or if one of your bases is understaffed, it might save time to reinforce it directly.

Finally, you must instruct your messenger as to whether or not your offer should be accompanied by a threat of reprisals against the Chief if he should refuse to deal with you. There are several factors which you should take into the balance before making this instruction: the strength and personality of the Chief, the proximity of his domicile to your nearest troops, and the size of his militia, to name a few. The size of the local militia varies from one half percent to one and a half percent of the village population, dependent largely upon the calibre of the Chief's leadership.

If Benthí's messenger threatens reprisals and the Chief repulses the offer nevertheless, failure to take action within four or five days will cause a diminution in respect among all of the Chiefs. Yet, however desirable it might be, it is very hard to create a reliable supply source based entirely upon good will.

After Benthí has told Lanai whether or not to threaten reprisals, Lanai will salute and leave on his mission. The screen will clear and then return to the Master Menu. If, instead of sending a message to Chief Dumas, we had wished to recall our spy in Janus, we would have proceeded a little differently. After selecting Lanai, we would have instructed him to take a message to our people (by pressing =O=) in the town of ____ (by pressing the first letter of the town name). Messengers don't get union wages, however, and if there aren't any friendlies in the village you direct him to go to, you are going to find him somewhat recalcitrant about leaving.

The Master Menu: O)rders

The final control on the Master Menu is O)rders. Press =O= and the Master Menu will be replaced by:

T)roop movement
B)reak camp

Press =T=. A soldier will appear and ask, "Where shall we go, Benth?" Respond by indicating the name of the village to which you want to send troops. The soldier will then ask, "How many men will you send?" Enter the number of armed men you want to move. You cannot send out unarmed men. The screen will then clear and the following appear:

Options:
S)ecure town
L)oot & pillage

What are our orders?

If you press =S=, your troops will go to the indicated town and fight only if the town is occupied by Tawala's forces. If you press =L=, the troops will attack the local militia, sack the town, and take as much booty as possible.

S)tay on station
R)eturn to base
M)ove to. . .

And when finished?

Again, choose the option you wish. If you press =M=, you will be asked to designate the cadre's final destination. The screen will then clear and return to Master Menu.

The second option under O)rders was B)reak camp. Press =O= again, and this time press =B= next. "Where to?" will appear and as soon as you respond, your troops (and you) will set off. Unless, that is, you answer anything but L)em or H)ollywood, the only two towns connected directly to Camp by roads. If you answer with any other town, your subordinate will ask the name of the first town you will pass through on your way to your ultimate destination.

There is one other option in the O)rders menu, but it appears only when Benth's headquarters have been relocated to Janus. The third option is **A)ttack redoubt**. This command will cause the final, all-or-nothing battle to begin, from which there is no retreat, no second

chance. All of your efforts in the game culminate in this, your final command, with which you order your legions to follow you to the very gates of Tawala's close, there to do final battle.

It is perhaps ironic that in this, the final battle, you are essentially a bystander. You can watch, from a vantage point high above the defile in which the battle takes place, but once the fray has begun, you cannot alter or in any way further affect the outcome. For true leadership rests not upon the moment of conflict but in the hours and toils leading up to the crucial moment.

There is no score at the end of Tawala's Last Redoubt. The situation permits of no partial victories, no salvaged defeats. Either Tawala is destroyed or Benthí. There is no middle ground.

The Messages

From time to time during the progress of the game, messages will scroll across the bottom of the screen. These messages include all reports based on the activities of your messengers, spies and troops while away from headquarters. If you find the messages hard to read while they are scrolling, you may stop their motion by pressing any key. A second keypress will start them up again. Occasionally, you may attempt to enter a command just as a message begins to scroll. If the keyboard does not seem responsive, check the lower right corner to see if a message has begun to scroll across the screen.

Paoli's secret agents report to Benthí by one-way wireless, so they can often provide sufficient advance warning of Tawala's troop movements to allow Benthí to avoid unwanted confrontations or to reinforce beleaguered outposts. They also sometimes intercept coded messages between Tawala and his minions.

Breaking Tawala's ciphers can greatly benefit the rebel cause, for these messages often contain valuable information. Sometimes they reveal Tawala's immediate plans. Sometimes they expose the location of hidden arms caches or of Vyl-ourmani's men. And sometimes they provide the code words that must be keyed in from the Master Menu in order to unlock hidden doors. Each new game will use a different cipher, but all messages within a game will be coded using the same cipher.

The coded messages are often quite long and use of the wireless is very dangerous, so it is imperative that these messages be copied down with the greatest possible speed. It is possible to break the wireless connection at any time by pressing any key during communication (and thus lowering the risk of exposing Benthí's agent),

but the agent will also break the connection in an unreasonably short period of time, so be forewarned.

Winning this game is not easy, especially if you make minimal use of the very slow pacing speeds. But then any effort to simplify the process by which Benthî overcame Tawala might cheapen her accomplishment, and that would never do.



Appendix A: The Diary

The following excerpt from the diary of Benthí covers a period of time substantially before Tawala's final defeat. Although it is not necessary to understand the source of the rebel leader's astounding power in order to replicate her actions on the battlefield, such comprehension may help one to understand her choice of tactics and the fierce intensity of her will.

Monath 1

Three seasons ago this month they took away my baby. I see it all so fresh still in my mind, the picture sharp as desert moonlight. It had been hot and dry. The summer rains had not yet come, and Margit was sleeping badly. I called her Margit. Thloka never called her anything, never admitted that she even existed. It is just as well, I imagine. He could never have pretended to love her.

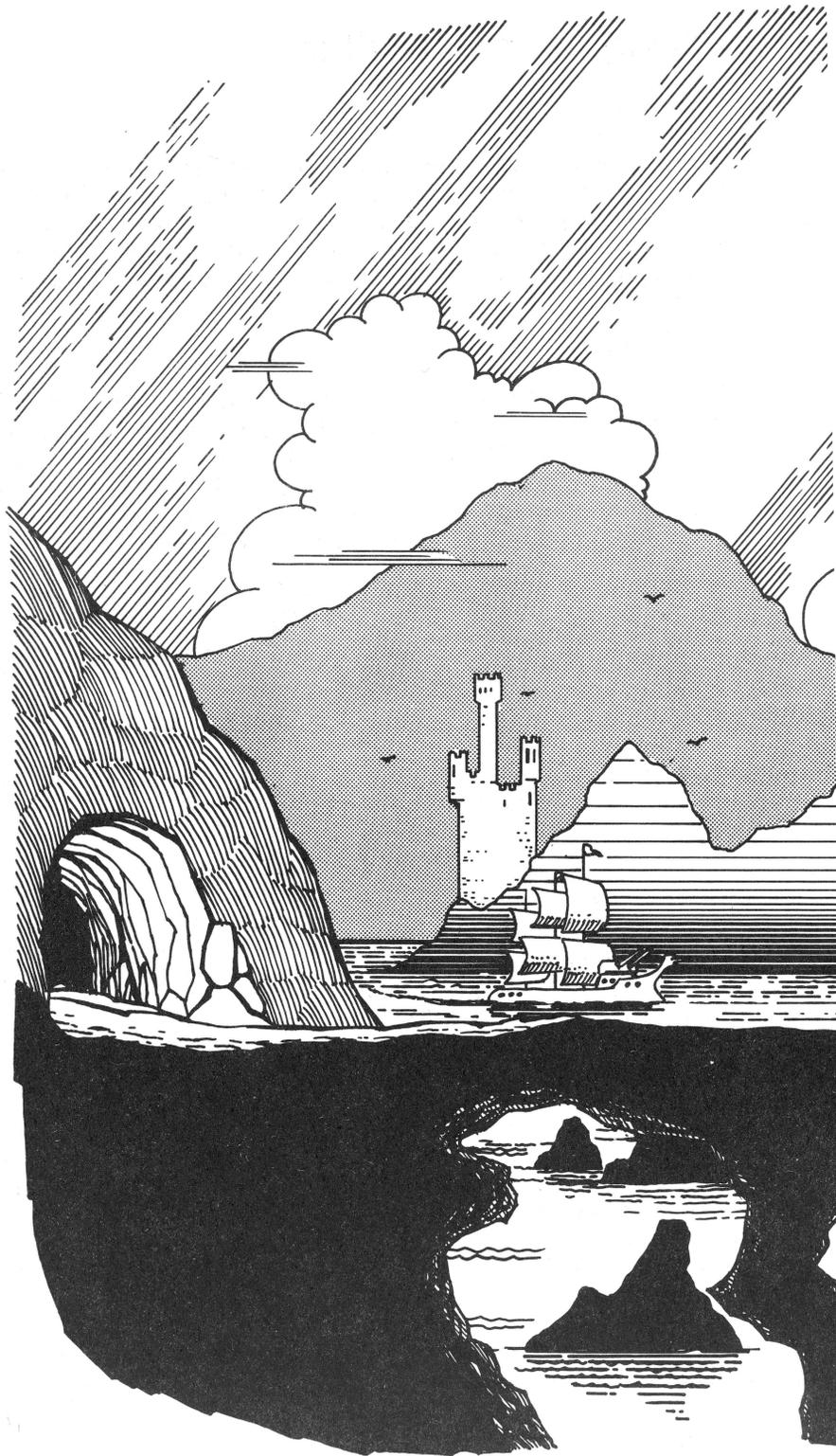
I wish I could train my mind not to drift like this. It always ends up floating back to those barren days and sends shivers of remembrance up my spine. Even now, when there is so much danger, if I shudder Rick knows that it is not fear that chills me, but memories. That is why he changed my name.

Bambi Knoch I was once — the forest fawn wed to a stolid Teuton. Benthí, Rick renamed me, full woman, and commanded me to put aside my past. Oh how I wished upon him such a power to remake me!

But when the air grows hot and dusty this time of year, those old images swell up before my eyes, so hard and stark I cannot shut them out. I remember. Margit, my child, pale skin, dark eyes, her hair just a fuzz of brown. And Thloka. The man I once loved more than I had ever loved, whom I followed to a world I never dreamed of, where he left me.

Five years we had together, years of poverty, hope and sharing. I bore him no son, a terrible failing, and yet he never gave me reason to know it. He was good to be with, a strong man with a happy, rippling laugh. When he spoke of this new land and its promise, with opportunities for all with strong backs and strong wills, it sounded like the heaven of our dreams. On Farside, he said, we could homestead, start our own farm, build our own clan. No longer would he have to watch me age so young from menial labor in others' homes. Oh how he cared for my welfare and happiness!!

Perhaps the dream was dying even then, but I failed to see it. The great clan he was to head was slow to spring from my reluctant





womb and surely meant more to him than he ever allowed. Of his own large family, only his sister Lorato and he had survived the war, the two youngest. And then Lorato's death one April night — Thloka and I had been married only two months. We took the trader for Far-side on the next pass. Too many memories, too many failures on Zoe, Thloka had said, and I had agreed.

I fight for freedom now. Once I scorned freedom, hated it and feared it, with a fear that would tighten about my heart like a kingsnake wrapped around a desert squirrel. I was too much a part of others then, too little a part of myself. I was the smallest knot in a web that crossed eons and worlds, that bound me to a duty and did not even acknowledge my existence in return.

We take up arms for countless causes and against innumerable oppressions, but our struggle is at heart the same—for self-respect. This weapon in my hand is not a license. No, I am responsible for my own actions now. I hold myself strictly accountable.

Four years ago one night I stopped by the kraal to speak with Rick. He was our foreman then, a man of immense energy and natural authority. I used to watch him drive the others, told Thloka that they worked harder under my eye. (Rick said — much later — that my fascination was not with his efficiency.) How it happened I cannot say even today, although I do not deny responsibility. He took me, there on the dusty sands, whether by force or otherwise does not matter any more.

I told not a soul of that night, and Rick did not come to work the next day or thereafter. We had a hard time of it for a while, for Rick had virtually run the farm, but when Thloka noted my increase he bent his back to the task with extra vigor and a lightness of step that belied his pretended indifference to coming fatherhood.

Margit broke his heart, a beautiful, shy earth-toned baby with nothing of Thloka about her. He continued as before, acting as though he lived only for his work, but Margit shamed him, and when one day the authorities came to take her away, Thloka would not meet my eye, and I knew that he had betrayed me.

Rick came down from the mountains one night shortly thereafter and took the rest of our workers away. From the window in my bedroom, I watched them as they drifted silently westward under the brilliant moons, wraiths scudding before the cleansing broom. I too was seized with the urge to flee our desolate homestead, and gathering together a few things, I set out after them.

(We fight together now, a single well-honed unit, but I know that each among us carries a personal pain we hope in some way to extinguish. That our liberation is but a matter of time I have no doubt,

but sometimes I wonder in my heart what will fill the emptiness within me when our struggle is over.)

I am stationed on a butte overlooking the wastes of Char-al-Nez, standing watch for the column which Tawala must send to rescue his beleaguered outpost in the Karalan foothills. It is beneath my position perhaps, this tour of sentry duty, but it breeds respect among the cadre, and besides, I need the time alone.

How strange to think of such considerations! When first I caught up with Rick, he ignored me and his people rebuffed me. Two weeks I followed the column, sleeping apart from the rest (but always with an eye open to see that they did not slip off), eating alone such nourishment as I was able to secure from the land and my rapidly depleting provisions, content (if they had known it!) merely to be in journey, each day's progress removing me one step from a life which had abandoned me.

I would not have survived without Ketumetse's help. She brought me scraps of food from the camp to supplement the thin diet I was able to provide myself. A slight wisp of a girl, no more than fourteen I imagine, she had been our housegirl at the farm and didn't seem to fit in well with the others. Perhaps that was why she sympathized with my isolation. The others doubtless saw what she was doing but made no effort to interfere. The terrain was hard enough to occupy most of our attentions.

The Karalan escarpment forms an austere wall marking the edge of the high savanna and the most fertile areas where the farms have sprung up. Beyond the escarpment the earth becomes grey dust, a fine soot that enters every pore and chokes the unmuffled throat. This is the Char-al-Nez, a hundred kis wide, a desolation inhabited only by the wind. It is said that men once lived there and that grass grew deep over that sterile land, but I do not believe it.

Beyond the wastelands lie the foothills and then the snow-white peaks of the Maziwa Range. Streams still chuckle there, disappearing into the ground at the edge of the Char. Few people venture into these hills, as the terrain is difficult and not suited to farming. That may have been one of the reasons Rick chose them for his base.

Early on the morning of the fifteenth day of our journey we reached the far edge of the Char and entered a narrow wadi leading into the highlands. Here the company stopped to enjoy the smells and sounds of living soil and to drink fresh water scooped from holes dug in the sand in low parts of the wadi. But no sooner had most laid down their packs than a band of marauders fell upon them from the high banks on each side. Many of Rick's people fell immediately,

while the rest fled helter-skelter. I could hear Rick's bellow as he tried to pull his panicked flock together.

I had trailed behind the main body half a ki or so, for even after a hardy farm life I was no match for the field hands in endurance. As a result I was not involved in the fray, although I saw it clearly from the edge of the wadi, which I climbed to avoid the raiders.

Once the great part of Rick's people had been driven off, their assailants swooped down on the fallen and started to strip them of their possessions, killing the wounded as they came upon them. I watched as if at a film, frozen with the shock and horror of it all (how time changes one!). Then the nearest of the victims shifted so I could see her face. It was Ketumetse, her face distorted by pain and fear. She appeared unable to walk but tried instead to crawl away from the melee. One of the raiders saw her and ran over to stop her escape. And suddenly I saw before me the image of my own lost daughter, grown up in a strange and forbidding world without my protection, and in my mind Ketumetse and she became one. From some hidden wellspring within me then gushed such a fount of rage that I lost all sense of time or place.

I have no recollection of what followed. Rick said that he saw me sweep down the side of the wadi and impale the bandit with my own small hunting knife, then turn on the remainder with so implacable an expression upon my face that they hesitated for a moment in indecision. Rick seized that moment, with some few of the hands whom he had collected, to attack the raiders from the other side, and they, having largely gained their objective, withdrew.

From that day my isolation was ended and if Ketumetse was still my most loyal supporter, my acceptance by the others did not appear grudging. It was as if, having decided now to trust me, they denied that they had ever failed to. It was not Rick's doing, of that I am certain. If his people had not accepted me, he would have kept his distance. He could lead his cadre — he explained it so plainly to me — only if they were absolutely certain that he always placed their interests before his own. If they did not trust me, neither could he.

I shared his tent for the rest of that long trek, until at last we reached his first redoubt, a small box-shaped valley backed up against Ghasialima, most northly of the Maziwa Range, where a full five hundred battle-proven men and women were already encamped. He was drawn away then by the responsibilities he must assume, but our small group must have spoken for me, for I was treated with courtesy by the entire camp. The cadre's position was in many ways less unsettling than Rick's. I was at least allowed to be one with them, if not one of them. I still did not know what Rick wanted of me.

During the months of training which followed I stayed with the same group, until I could no longer see in any of them the faces of my former "hands." We all grew together during this time, for Rick blended us skillfully into a single unit. And when the time came for our first battle testing, Rick led us personally.

We raided a farm, not unlike the one from which we had all originally come. We had been expertly prepared and thoroughly rehearsed in each phase of the operation. Some among us were designated to approach the farmhands and recruit as many as possible to our cause. Others were to lead the meat animals away. Still others were to secure communications, disarm the owner and his family and search for weapons. We were ready for our test, and yet we failed, for we were expected. Tawala's men were waiting for us and took us by surprise. Fully half the cadre was killed or left behind, and I would certainly have numbered among the casualties had not Ketumetse pulled me aside from the main body because of some difficulty with her pack, so that we were at the very rear when the trap was sprung.

Rick was wounded very slightly in the arm, but on the return trek he angrily refused my offer to bind it up. I was the more hurt then when he allowed Ketumetse to stanch the bleeding. And my hurt grew greater when he avoided me utterly on the return journey, as if my presence had somehow been the cause of our failure.

I had not shared Rick's tent after we first reached Ghasialima, but he would frequently appear at mine late into the night and often not leave my arms until the morning light drove us into wakefulness. But after the raid these visits ceased. It was evident that Rick felt that I had failed him in some way, but I was unable to ask him directly. If I had needed any final proof of my fall from favor, however, I received it presently, when I woke one day to find most of the camp gone on another raid of which I had not even been aware.

They were gone three days. As the sun was disappearing over the western rim of the valley, the remnants of the raiding party straggled into camp, no more than two thirds the size of the original band, and many of them wounded. I joined those easing the pain of the injured and was changing dressings when Rick sent for me.

He apologized immediately. I had not been informed of this last raid, he told me, in order to clear me of certain charges which he had encountered running with foul energy through the camp — that I had somehow communicated warning of the previous raid to the authorities and was therefore responsible for the ambush which had caught us by surprise, with such devastating consequences. Since I

had not known of this second raid and since it too had been ambushed, if there were a spy in the camp, as seemed likely, I was really the only person now above suspicion.

I still can recall the crushing impact of this revelation. No, I was not overjoyed to learn of my own innocence. I had not realized that it was in question. But to have been suspected without cause before any others — that was cruel. And even worse, to have been absolved through being denied a piece of information all the camp knew. . .

How could he know that no one in the entire camp had told me of this second raid, I challenged him. What kind of proof was that? I might indeed be his spy. What gave him such assurance that I could be kept ignorant of a secret shared even with the children! His bland certainty humiliated me more than I could tell.

How did he know that Ketumetse, my devoted follower, had not revealed the raid to me? Because it was she who had suspected me in the first raid, Rick had answered. It was she who told him how I had dropped out of the advancing column so that I wasn't in my proper position when the trap which caught us was sprung. It was Ketumetse who pointed out that when we were attacked after leaving Thloka's farm, I stepped into the open and yet was not harmed. She is grateful that you saved her life, he said, but she is not a fool.

No, not such a fool as men can be! His tone as he spoke told me what I had not known, and then the pieces began to fit together at last. I understood then why I had seen so little of Ketumetse over the past two months, why Rick had come less often to my tent, even before the first raid, why the women in camp deferred to a wisp of a girl a fraction of their age.

How can I separate the turmoil of my feelings at that time? — yet I do not believe that jealousy or spite colored what I then did. I have always had a facility for cutting off my emotions when they interfere with what must be done. It was as Rick himself said. The interest of the cadre must come first — and if our leader's judgment was impaired by his male foolishness, then it was my responsibility to take steps to protect us.

I am not hasty. I did not waste my knowledge on unyielding ears. Instead I begged Rick to allow me to lead the next raid, to erase any lingering suspicions over my loyalty to the cadre. A little to my surprise, he agreed. He too realized that it was necessary. My skin tainted me yet.

We studied the maps together and ultimately selected a brazen target, the huge Mani-kor estate, on the third night before the next conjunction of the moons. I occupied him until past the evening meal and the sun had already set when finally I left his tent. But I did not return to my own.

There is a nook in the boulders nearby. I squatted there until I saw a lithe form slip through the tent folds. Then I wandered in the darkness for a time, for their private pleasures were no concern of mine. I returned only when I felt that Rick would be sleeping — he was not a great talker and slept quickly and deep. In the chill of the night I waited. Of what was to come I had no doubt.

The dawn greyed about me presently. I was sore and cramped from the vigil. I rose and began to move about as if upon some little errands, so that my purpose would not be evident to the early camp risers. But Ketumetse did not emerge until the sun was full upon the tent and with such radiance in her face that I was at last pierced by doubt. Could this frail creature be our betrayer? Could anyone shine so with life and send her comrades to their deaths?

She spied me then and greeted me with warmth, and had I not recalled her words denouncing me, I should have put my suspicions behind me. It is well that I did not.

(I see a great stirring of dust on the far horizon. Tawala's unimaginative commander has reacted as anticipated. We shall prepare the ambush. but there is time yet. The column cannot march in the full heat of the day and will not reach the place where we shall destroy it before evening.)

Three days I watched her, even as I put the cadre through final drill in preparation for the raid. Three nights I lay sleepless in the rocks by Rick's tent. And just as dawn began to lighten the valley tops on the fourth day, I was rewarded.

She slipped out the back of the tent so silently I would surely have missed her had my attention not been attracted by a burst of song from a nightthrush. She climbed with sure feet toward the canyon headwall. I followed her with my eyes, and only when she dipped behind the short rhiolan growth did I rise to follow her.

She was crouching behind the bushes in the middle of the path, speaking softly as if to herself, and in my haste I tripped over her. She would have scrambled away, but I held her by the ankle until I could pinion her to the ground with my body. She was strong but very light and no match for me in strength.

I could hear her breath coming in quick little gasps beneath me. Why, I asked? Why do you do this, Ketumetse? Presently she started to weep. She said nothing but sobbed as if her heart were torn asunder. After a time, I lifted her and carried her back to the camp. She lay limp as rags in my arms, not resisting, already a stranger to this world.

At morning call, I showed my prize. They jeered me. Blinded by narrow thoughts, they applauded my loudest skeptics. Ketumetse did not speak. Carefully, I laid the evidence before them, one point at a time. None would hear me out, particularly not Rick, who made as if to stop me. Then a rage took me, and I denounced them all for what they made me do.

With my knife I cut open her throat to reveal the device I knew was there. The glint of wire and metal from within the bloody wound silenced them then. But anger and sorrow took my voice away, and it was left to Rick to come and inspect the body of the woman he had known, to separate the transmike from the shards of surrounding tissue and display it for all to view. He had the decency to weep for her, which is the reason I forgave him for being such a fool.



Appendix B: The Annotated Tawala

- 1) **Input Routines**
 - a) **Scaled input**
 - b) **"Real time" livekey input**
 - c) **Numeric livekey**
 - d) **Yes/No**
 - e) **Single stroke name entry**
- 2) **Output Routines**
 - a) **Message scrolling**
 - b) **Multiple line messages**
- 3) **Use of logical operators**
- 4) **Branching Routines**
 - a) **The Potpourri approach**
 - b) **Weird ASCII branches**
- 5) **Miscellaneous Routines**
 - a) **The clock**
 - b) **Delay loops**
 - c) **Message encryption**

The author greatly regrets the necessity of locking computer programs — there is, after all, no better way to learn than by emulating the efforts of others. This annotation is offered the reader, therefore, by way of apology and in the hope that some of the routines may prove useful to others.

1) Input Routines

a) Scaled input - This routine will create a scale of numbers on the screen and position the flashing cursor over the number chosen, graphically demonstrating its position in the scale and permitting changes in the choice until =RETURN= is pressed. Input variables are TP (top number in range) and G% (initial position of cursor). The output variable is G% (the value of the choice between 1 and TP).

```
100 VTAB 20; HTAB 7; FOR X = 1 TO
    TP; PRINT X" ";; NEXT
110 VTAB 20; HTAB 4 + 3 * G%; GET
    A%; IF G% > 0 THEN PRINT G%
115 IF A% = CHR$ (13) THEN RETURN
120 IF ASC (A%) > 48 AND ASC (
```

```

A$) < = TP + 48 THEN GZ = VAL
(A$)
130 VTAB 24; HTAB 8; PRINT "PRES
S ";; INVERSE ; PRINT "RETUR
N";; NORMAL ; PRINT " TO CON
TINUE";
140 GOTO 110

```

b) **"Real-time" livekey input** - This routine strobes the keyboard, testing to see if a key has been pressed. If it has, the value of the key is returned as the string, A\$. Otherwise, the clock counter is updated one tick and the clock routine (see later) is updated. Note the use of FRE(0) in this cycle. This functions as a short delay loop and also clears out unused strings at the time of every new input, preventing buildup. The GOSUB 8 calls the clock routine.

```

6 DZ = PEEK ( - 16384); IF DZ <
127 THEN DZ = FRE (0);B = B
+ 1; GOSUB 8; GOTO 6
7 A$ = CHR$ (DZ - 128); POKE -
16368,0; RETURN

```

c) **Numeric livekey** - This routine allows input of up to 4 digit numeric characters. Backspacing is supported (the peculiar method used here is necessary when writing text to the high resolution screen with the Apple hi res character generator routines). After the first character is entered, a timing loop begins which allows about 15 seconds to finish entering the number (you can press =RETURN= before the time is up to indicate that you are finished, of course). The output is the string B\$. GOSUB 6 refers to the livekey routine above. The '141' in line 12 is just a RETURN with the high bit set (CHR\$(13 + 128)) and the '136' on the next two lines likewise refers to CHR\$(8), a backspace.

```

10 GOSUB 6; IF ASC (A$) < 48 OR
ASC (A$) > 57 THEN 10
11 VTAB 24; HTAB 20;B$ = A$; PRINT
A$;; FOR E = 1 TO 100; DZ = PEEK
( - 16384); IF (DZ < 176 OR
DZ > 185) AND DZ < > 141 AND
DZ < > 136 THEN B = B + 1; GOSUB
8; GOTO 17
12 IF DZ = 141 OR LEN (B$) > 3 THEN
E = 100; GOTO 17
13 IF DZ = 136 AND LEN (B$) = 1

```

```

THEN HTAB 20: VTAB 24: PRINT
",":E = 100: NEXT: GOTO 10
14 IF D% = 136 THEN B% = LEFT%
(B%, LEN (B%) - 1): GOTO 16
15 B%=B% + CHR% (D% - 128)
16 VTAB 24: HTAB 20: PRINT B% "
: POKE - 16368,0
17 NEXT : POKE - 16368,0: RETURN

```

d) **Yes/No input** - This is a dumb one. I don't know how it got in here.

```

20 GOSUB 6: IF A% = "Y" THEN J% =
1: G% = "Yes": RETURN
21 IF A% = "N" THEN J% = 0: G% =
"No": RETURN
22 GOTO 20

```

e) **Single stroke name entry** - If you have nine names stored in an array, each starting with a different letter of the alphabet, then this routine will return the full name in variable A\$ if the proper key is pressed. If the key pressed is not one of the nine correct ones, it will be ignored. Note, however, that if you set the flag (FL%) before going to this routine, you will be allowed to back out of the routine by pressing =R= or =RETURN=, in which case instead of returning whence you came, you will be rerouted to the Master Menu (line 62). The command POP gets rid of the pointer pushed onto the stack by the command GOSUB. The end of Line 23 may or may not be mystical voodoo, at least in the case of the Apple II. It's a dire necessity on many other machines, designed to clear old FOR. . . NEXT loops out of the machine.

```

23 GOSUB 6: FOR A = 0 TO 8: IF A
$ = LEFT% (VILLAGE$(A),1) THEN
A$ = VILLAGE$(A):LZ=A:A = 8: NEXT
: RETURN
24 NEXT : IF M% > 0 AND (A% = "R"
OR A% = CHR% (13)) THEN A =
M%:M% = 0: POP: GOTO 62
25 RETURN

```

2) Output Routines

a) **Message scrolling** - Load any message into A\$, call this subroutine, and watch your message go rippling across the screen. Since scrolling messages are sometimes hard to read, pressing any key will stop the scroll. Another press will start it up again. Sound effects at no extra charge (PEEK(-16336)). Keep your messages under 215 characters.

```

58 G$ = "          "; G$ =
   G$ + G$:G$ = G$ + G$ + A$:
   J = LEN (A$):A$ = "": POKE
   - 16368,0: FOR P = 1 TO J:
   VTAB 24: HTAB 1: PRINT MID$
   (G$,P,40):D = PEEK (
   -16336): IF PEEK ( - 1638
   4) > 127 THEN POKE - 16368
   ,0: GOSUB 6
59 NEXT :G$ = RIGHT$ (G$,40) +
   LEFT$ (G$,40): FOR P = 1 TO
   41: VTAB 24: HTAB 1: PRINT MID$
   (G$,P,40):D = PEEK ( - 163
   36): IF PEEK ( - 16384) > 1
   27 THEN POKE - 16368,0: GOSUB
   6
60 NEXT :G$ = "": RETURN

```

b) Multiple line messages - There is nothing I hate more than word wraparound; it just isn't elegant. This routine fixes the problem. Input your text as N\$.

```

163 VTAB 19: HTAB 1: G$ = "": RZ =
   0: FOR A = 1 TO LEN (
   N$):G$ = G$ + MID$ (N$,A,1
   ):RZ = RZ + 1: IF RIGHT$ (G
   $,1) = "." THEN 165
164 IF RIGHT$ (G$,1) < > " " THEN
   167
165 IF RZ < 39 THEN PRINT G$: G$ =
   "": GOTO 167
166 PRINT: PRINT G$:RZ = LEN (G$):
   G$ = ""
167 NEXT : RETURN

```

3) Use of logical operators

Logical operators can and should replace many an IF statement. They seem to be faster. They make up for the lack of an ELSE Statement in Applesoft. And they definitely make code harder to read. They work like this: if a phrase (e.g. $X > 5$) is true, it is evaluated as the number 1; if false, as a 0. Try the following:

```

223 T% = X% * (X% < Y%) + Y% * (X% >
   = Y%)

```

Translation: Set T% to the lesser of X% and Y%.

```

152 AM = AM - ((AM - 999) * (AM > 999))

```

Translation: If AM was greater than 999, it ain't no more.

```
187 T7 = AC * (RQ = 0) + MC * (RQ =
      1) + TZ * (RQ = 2)
```

Translation: Depending upon the value of RQ, set T7 equal to AC, MC or TZ.

4) Branching routines

a) **Potpourri branch** - when you have a long menu of functions, the following makes a quick and elegant branch:

```
62 GET A$: FOR I = 1 TO 9: IF A$ =
    MID$ ("AZWD IJKM",I,1) THEN J =
    I: I = 9: NEXT : ON J GOTO 10,
    12,14,16,18,20,22,24,26
64 NEXT : GOTO 62
```

b) **Weird ASCII branches** - These are my favorite. Almost any group of characters can have their ASCII values manipulated in such a way that you can come up with a branchable series. For example:

```
86 VTAB 23 HTAB 1: PRINT "Tell him
    we require...": VTAB 20: HTAB 24
    : PRINT " A)rms ": VTAB 21: HTAB 25
    : PRINT "M)oney": VTAB 22: HTAB
    25: PRINT "T)roops"
87 GOSUB 6: IF A$ <> "A" AND A
    $ <> "M" AND A$ <> "T" THEN
    87
88 V = INT (( ASC (A$) - 55) / 8
    ) : ON V GOTO 90,95,97
```

5) Miscellaneous routines

a) **The clock** - This is driven by the livekey input described earlier. It uses some of the logical operators described before.

```
8 IF B >= 59.9 THEN EZ = EZ +
    1: B = 0: IF EZ >= 12 THEN
    E$ = "PM": IF EZ >= 24 THEN
    GZ = GZ + 1: E$ = "AM": IF EZ
    > 24 THEN EZ = 1: GZ = GZ -
    1
9 HZ = EZ - 12 * (E$ = "PM" OR EZ
    = 24) * (EZ <> 12): F$ = STR$
```

```

(HZ): FOR AA = 1 TO 3 - LEN
(F$):F$=" " + F$: NEXT : VTAB
1: HTAB 19: PRINT F$:""; RIGHT$
("0" + STR$ ( INT (B)),2) " "
E$" Decathr "G$: RETURN

```

b) Nested delay loops - my thanks to Art Canfil for this idea. I first saw it in his game Tai-Pan. You just enter this stack at the appropriate point to get your desired delay.

```

2 FOR A = 1 TO 1500: NEXT
3 FOR A = 1 TO 500: NEXT
4 FOR A = 1 TO 500: NEXT
5 FOR A = 1 TO 15: NEXT : RETURN

```

c) Message encryption - Tawala uses a very simple cryptogram routine. At the beginning of each new game a letter substitution code is created and stored, as follows:

```

1220 FOR A = 0 TO 17
1230 TZ = INT ( RND (1) * 25 +
      .5): IF GZ%(TZ) = 9 THEN 1230
1240 GZ%(TZ) = 9:HZ%(A) = TZ: NEXT
      : FOR A = 0 TO 25: IF HZ%(A)
      < > 0 THEN 1270
1250 FOR E = 0 TO 25: IF GZ%(E) < >
      9 THEN HZ%(A) = E:GZ%(E) = 9:
      E = 25
1260 NEXT
1270 NEXT

```

Then, during the play of the game, messages (stored in string A\$) are encrypted by the following routine:

```

6560 L$ = "": FOR A = 1 TO LEN (
      A$):YZ = ASC ( MID$ (A$,A,1
      )): IF YZ > 64 AND YZ < 91 THEN
      YZ = 65 + HZ%(YZ - 65)
6561 IF YZ > 96 AND YZ < 123 THEN
      YZ = 97 + HZ%(YZ - 97)
6565 L$ = L$ + CHR$ (YZ): NEXT

```

Note that line 6561 is only necessary if you are using lowercase.

Outline of Control Functions

=M= Messenger

=H= Haka =J= Juma =K= Keetse =L= Lanai

1) ... take this message to ...

=O= our people

... in ... (one of the villages)

... Tell them to move to ... (village name)

=A=, =B=, =C= OR =D= (one of the four chiefs)

2) Offer him. . .

=N= Nothing

=M= Money

... specifically ... (enter sum)

3) Tell him we require. . .

=A= Arms

=M= Money

=T= Troops

4) ... specifically ... (enter sum)

5) To be sent to: (one of the villages)

6) Should I threaten reprisals for failure to comply?

=I= Intelligence

=M= Map

=D= Dossiers

=G= Geographical

=S= Send Agent

=O= Orders

=T= Troop Movement

1) Where shall we go? (one of the villages)

2) How many men will you send? (enter sum)

3) What are our orders?

=S= Secure town

=L= Loot & pillage

4) And when finished?

=S= Stay on station

=R= Return to base

=M= Move to. . . (one of the villages)

=B= Break camp

1) where to? (one of the villages)

Non-listed controls:

=Q= Quit game

=CNTRL Q= Turn sound off

=CNTRL S= Turn sound on

=1= to =9= Change tempo of game

The names of the villages:

=A = Anaxis

=D = Delphi

=J = Janus

=B = Bahl

=F = Ffahr

=K = Koku

=C = Camp

=H = Hollywood

=L = Lem

and sometimes: =T = Tawala's Last Redoubt

The names of the Chiefs:

=A = Anson

=B = Beonj

=C = Covoi

=D = Dumas

The names of the messengers:

=H = Haka

=J = Juma

=K = Keetse

=L = Lanai



IV TAWALA'S LAST REDOUBT

The cruel Emperor Tawala has been forced from his throne on the world of Galactica and has fled for his life to the planet of Farside, where he and a small bank of adherents prepare to make their last stand. Extreme solar conditions have isolated Farside from the rest of the galaxy, and so it remains to Benth, leader of the local insurrectionists, to press the final assault on Tawala and his minions.

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