ENTER OUR BATTLEFRONT
SCENARIO CONTEST $1,500
TO BE WON.
DETAILS INSIDE

Featured in this Issue

★ **Flying Tigers** – a scenario for *Europe Ablaze*
★ **Task Force South** — a scenario for *Battlefront*
★ **Gallipoli** — a scenario for *Battlefront*
★ Roger Keating on Programming
★ Guadalcanal Replay
★ *Conflict in Vietnam* reviewed
★ German Aircraft of WWII for *Europe Ablaze*

Run 5

EDITOR'S CHANCE

With the publication of this issue, *Run 5* celebrates its 1st birthday. And while things are going as well for us as they are, we're pretty confident we'll be around to celebrate a second.

You'll notice that neither of the two *Battlefront* scenarios in this issue are set in World War II. In extending the development of the game, we have been pleasantly surprised at just how flexible the system is. The purpose of publishing scenarios set so widely apart is to illustrate the potential you have at your disposal to simulate history.

In the next issue we'll be returning to the 1940s with an Arnhem scenario. The drop of the British 1st Airborne Division and its desperate defence of that town will be the subject of the game. Furthermore, we will be developing this scenario into a campaign format over succeeding issues with additional scenarios for the 82nd and 101st drops and the 30th Corps drive. One purpose of this approach will be to put together a set of rules to handle campaign situations in a sensible and systematic manner.

We are still working on tables of organization and equipment for WWII combatants and hope to have at least some of them ready for publication in the next issue. Depending on space availability, we may well include an Anzio scenario as well.

AND THE WINNER IS. . .

Kenneth G. Wastrack of Muscle Shoals, Alabama takes out the first (and only) prize in our *Carriers at War* competition. His Leyte Gulf scenario, incorporating some very subtle manipulations of the game system, is carefully researched, exciting and, on most test runs, accurately followed the course of the battle.

We will be publishing his creation in our next issue. In fact, we have commissioned Mitch Lovett (the gent responsible for the cover to this issue and an even bigger aeroplane nut than myself) to paint a 'moment' from the action for the cover.

The scenarios listed below, although they didn't win, are to be highly commended for their design and may appear in future issues of *Run 5*. Some introduced innovative uses of the *CAW* system to achieve historical and worthwhile results.

Daniel H. Antolec of Monona, Wisconsin produced an excellent Leyte Gulf scenario which was unlucky not to win. Included in his

plane types was the Shimpu, a representation of the kamikaze attacks encountered at Leyte Gulf. Designed like the original to fly only once, it has a large bombload to simulate their destructive power, and an increased vulnerability to ensure its non-returnability.

Eric Ronald Graef of Blue Springs, Montana was one of a number of entries postulating an earlier IJN response to the landings at Guadalcanal. Most of these are simply the Battle of the Eastern Solomons advanced in

LETTERS TO THE EDITOR

This is the first time we have published any of the letters sent to us. In case you're wondering why they are so complimentary, it's because we dump all whingeing and/or complaint letters, unanswered, down the drain!

Gentlemen,

Last Christmas, after much hinting, I got your *Carriers at War* game as a gift. It has given me much enjoyment and I just wanted to tell you that and perhaps talk shop a bit.

Often, game creators come up with something, add a few variables and some historical titbits and pass off their product as 'realistic' and the next best thing to being there. I've done a lot of research in military subjects in my time (I'm 42, a full time trainer in the Pennsylvania National Guard and a Vietnam Marine veteran) and often I'm disappointed when I open the box - up until *CAW*, my 'thing' was boardgames.

CAW is something else, and so are you. I highly commend you and your colleagues for the obvious meticulous research you have done. In all the creation scenarios I have come up with, whatever data I have assembled has collated and/or matched that contained in the game. Ranges of aircraft, however, have confused me. . . [See next issue's Q&A. *Ed*]

If I had a wish it would be that you could produce a land warfare version, something like the old SPI *War in the East*, with production menus and all the rest. [Prophetic, ha! *Ed*]

I expect you mostly get letters only when the disk is defective or when people decide to blame you for their lack of intelligence, so I do hope I can brighten your day. I always tried to get R&R to see your country but got Manila instead.

Keep up the good work!

John Ferry
Russell, Pa. USA.

Sirs,

I am not a computer whiz; I am a wargamer. My computer is solely used for this purpose. I've played boardgames for close to 18 years now and I would like to take this time to tell you a few things about yourselves.

My introduction to your games came from reading an article in *Fire & Movement*. I

promptly ordered *Carriers at War*. This game is not only enjoyable to play, but is historically and mechanically accurate. You have outdone yourselves with the multitude of scenarios, the ability to change the programs, the easy accessing of menus and permitting the player to save/copy disks. I had nothing bad to say about *CAW* until. . . along came *Europe Ablaze!*

What is wrong with *CAW*? Actually nothing until you compare it with *EA*. *EA*, in my opinion, is the best wargame on the market. Every scenario is exciting and I feel you must have the inside track over all the competition by this time. So, how about if you apply some of the mechanics of *EA* to *CAW*? First, instead of having a task group sighting every hour, just have a report as in *EA*; i.e. the radar sighting mechanism. *CAW* suffers in comparison to *EA* by time lag. Also, the cursor symbols and sound effects of *EA* are much superior.

The other day I received my copy of Battlefront. Again, way ahead of the competition. It is up to SSG standards by demonstrating again easy mechanics and a delightful save menu. You have slipped on the 'historic bar of soap' here a little though; where are the para-marines who fought on Bloody Ridge? [They're there. . . really! Have a look in the BF errata on page 15. *Ed*]. What is the entire 7th Fleiger Division doing on the same portion of Crete. . . [It's not. A couple of battalions may have taken a wrong turn; I'll quiz those Ju52 pilots about it. *Ed*].

As for more *Battlefront* disks? By all means, YES!! You have touched on subjects no one has considered. . .

What about *Run 5*, you ask? Nothing but PURE professionalism. You give the subscriber what the other companies want to 'hoard and hide'. For the computer fanatic the game is there for them to program and for people like me, the disk is there to be played.

So what have I said about SSG in review over the last three pages? Well simply, you've got

great products, fine staff, a professional publication and a great bunch of geniuses.

Patrick J. Murphy
Fayetteville, NC. USA

[I would like to point out that Mr Murphy is a very perceptive fellow!]

Dear Mr Keating and Mr Trout,

I am writing to congratulate you both for the game *Carriers at War*. It is the only one of yours that I have right now, but will be getting *Europe Ablaze* shortly and am looking forward to *Road to Appomattox*.

Now one note to be corrected. I served aboard the destroyer DD778. The name is spelt Massey, Lance E.

Thank you and keep up the good work.

Douglas Flagg
Athol, Mass. USA

P.S. I love *Run 5*.

Dear Ian,

First, let me extend my appreciation for the excellent game magazine you produce. As a recent owner of your Carriers at War, I appreciate all the advice and suggestions I can get access to. Your magazine is a fitting companion to your game.

Second, I would like to suggest that some thought be given to the formation of a membership club or clubs based on the owners of your games. This would provide all of us with contacts with fellow game players in our own communities as well as internationally. This would allow for exchange of created scenarios as well as research and other information. I realize you are very busy, but I'm sure if you were to suggest the idea in your magazine, there would be a large enough response so that the chore of organizing such clubs could be passed on to others.

Bruce MacLeod
San Francisco, Ca. USA

[Well?]

Dear Mr Trout,

A month ago I had the pleasure of meeting you at Origins '86 in Los Angeles. You gave a demonstration of your new game, *Road to Appomattox* to my friend Roger Truit and me. The system looks fantastic and I eagerly await its release this fall. [How about next Origins! *Ed*] It made the drive to LA worth it. Ever since *Carriers at War* appeared on the market last year, I have been hooked on SSG. I

subscribed to *Run 5* and was very happy with the first two issues.

I wanted you to know that there are many fans out here in the wide world. Keep up the outstanding work (BEST by far in the genre!) and also keep those games coming! Take Care!

Brian M. Mehl
National City, Ca. USA

Gentlemen,

As you say on page 2 of *Run 5* Issue 2, not everyone gets a kick out of typing in scenario data for *CAW* or *EA*. Me either. I am enclosing $35 to upgrade my subscription to include scenario disks.

Your magazine entirely exceeded my expectations. Please keep up the good work. Contrary to Mr Crawford's opinion, not all great computer game designers are American.

Joseph P. Molnar
Arlington, Va. USA

Dear Ian,

Thank you for your prompt reply to my letter.

On a more personal note, suffice it to say I had little interest in Pacific naval operations till I played Midway for the first time. Since then, *Carriers at War* has been my top wargame.

Mitch Williamson
Dalkieth, WA. OZ

Greetings,

This is just a short note of congratulations concerning your continual, superb work. I have *Reach for the Stars, Carriers at War* and your new *Battlefront* looks great.

Your programs are always exquisitely done. Your AI is always far beyond that of other companies.

I therefore say, I wish you continual success and eagerly await your grand strategic program on the Civil War, *Road to Appomattox*. I am a CW buff and nothing of this type has been done. Please inform me on completion.

Thank you very much

Don Anglin
Seattle, Wa. USA

time. Eric has added an upgrading of the airfield and the addition of several squadrons before the landing which makes things more difficult for the US. If both options are combined it makes things very tough indeed.

Robert Wiggins of Los Angeles, California produced several scenarios. The invasion of Norway features the use of zero movement point warships to represent shore batteries. The Tokyo Express covers a Japanese supply/bombardment group attempting to crash through at Guadalcanal. Sealion is the German invasion of England following the defeat of the RAF.

Michael L. O'Pezio of Highlands, New Jersey produced a novel scenario on the hunt for the Bismarck and Prinz Eugen, starting with the attack by the Hood and the Prince of Wales. Variations include successively adding the Tirpitz, Scharnhorst and Gneisenau. Of course, there is nothing to stop those of you dissatisfied with Hitler's naval policy from hurling everything into the North Sea, just to see what happens.

The winner of the *Europe Ablaze* contest will be announced in the next issue. And don't forget the *Battlefront* contest which closes in June '87. Details of this opportunity are on p. 15.

ORIGINS '86

Well, notwithstanding some frantic game assembly on the way to the airport, the doughty SSG team arrived in downtown LA, intact, for the big convention. Panther Games' Dave O'Connor almost earned himself the *Wally of the Tour* Award for some injudicious remarks made within earshot of US customs at LA Airport. However, Nigel Brand, from *Breakout* magazine, who completely lost his rental car in the Disneyland carpark just managed to sneak away with the Award at the last moment.

As I predicted last issue, MicroProse's splendid simulation *Silent Service* won the coveted Charles Roberts Award for *Best Adventure Game for the Home Computer*. The other nominees weren't graded but we like to think we came a close second.

It was a well deserved win made all the more convincing by Bill Stealey, MicroProse's President, who showed his professionalism by sending a copy of the game to every member

of the Academy of Adventure Gaming Arts and Designs; i.e. everyone entitled to vote. We didn't have the brains to think of that! I guess it's back to Kitten Class for us!

We were very pleased with the initial response to *Battlefront*. We'd also like to thank all of you who took the trouble to come up and say hello. It's not often we get an opportunity to talk shop with our customers and we made the most of it.

I'd like to say that the rumour going around that Joel Billings was seen wearing an SSI T-shirt with the I crossed out and replaced by a G is completely unfounded.

We'll be in Baltimore next year for Origins '87 and we look forward to seeing you there.

WORK IN PROGRESS

The *Road to Appomattox* has been temporarily closed for repairs. Roger and I have decided to discard the hex grid for this game. As less than 15% of the map area will see any action, and much of that only sporadically, we cannot justify the 4.5K of memory currently used to produce the map and its attendent data base.

We intend to use a point-to-point map structure with provision made to identify overland, rail, riverine and ocean links between centres. We have refined the tactical battle system to the point where it is now almost a game in itself and the routines used to determine the nature of battlefields are, we believe, adequate to overcome the absence of the traditional grid.

We need the extra space to develop the political overlay to the game and to enhance the 'role-playing' elements of the military commands. We have as a goal the creation of a serious, dual purpose strategy/role-playing game. . . the first of its type!

Don't worry. We wouldn't dare come to Baltimore without it.

Well, that's the bad news. Now for something a little more encouraging. We do intend to release a new game either this year or in the first couple of months of 1987.

Sooner or later, every historical game designer who wants to be taken seriously

FLYING TIGERS

Operation Alpha
14th - 21st December, 1944

A SCENARIO FOR
EUROPE ABLAZE

By Malcolm Power

In the latter half of 1943, the effect of the mounting Allied air raids from inland China against Japanese communications, port facilities and merchant shipping forced the Japanese to launch a radical campaign to neutralize Allied forward airfields.

Unable to destroy Allied air power with their own air forces, the Japanese Army untertook a land expedition to capture the airfields directly. In the spring of 1944, two Japanese armies operating from north and south opened a corridor from Hankow to Hanoi.

The success of this campaign forced a major change in Allied planning for the China-Burma theatre. For the first time, the Allied tactical air forces in China received the manpower and equipment to take the fight to the Japanese on equal terms.

The Flying Tigers struck back . . .

The cover painting by Mitch Lovett shows a Ki-45 heavy fighter (Nick) on the receiving end from an early model P-51 Mustang somewhere in China.

THE SITUATION

On Thanksgiving morning, November 1943, a raiding force of 14 Mitchell bombers escorted by 8 Mustangs and 8 Lightnings departed their forward bases in China to strike at Japanese airfields on Formosa.

Flying at wave-top level over the Formosa Strait to avoid radar detection, the pilots of the 14th Air Force (joined en route by aircraft of the Chinese-American Composite Wing) struck a completely unprepared target. Forty-two Japanese aircraft were destroyed on the ground. Not a single Allied airplane, not a pilot, was lost.

It was this raid, and what it heralded for the future, which convinced the Japanese High Command of the necessity to eliminate Allied air power in China.

In December of 1943, Lieutenant-General Shunroku Hata, commanding officer of the China Expeditionary Army, ordered an immediate aerial offensive against American installations to be followed by a massive land offensive in the spring of 1944. The Flying Tigers were to be exterminated!

Operation *Ichi Go*, the code-name for the planned spring campaign, was expected to realise several purposes. Chennault's airfields would be neutralized by the novel approach of capturing them with ground forces, a reliable land transport route would be established from northern China to Indochina, potential bases from which B-29

5

FLYING TIGERS - Plane Types

PLANE NUMBER	1-37	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PLANE TYPE	[11]	Kittyhawk	Warhawk	Lightning	Mustang	Lancer	Vanguard	Liberator	Mitchell	Superfort	Zero	Nate	Oscar	Tojo	Tony
ROLE	0-3	1	1	0	0	1	0	2	2	2	0	0	0	0	0
CREW	0-7	1	1	1	1	1	1	7	5	7	1	1	1	1	1
FUEL	1-255	36	38	91	51	62	41	140	75	255	62	59	87	51	33
PAYLOAD	0-63	2	2	6	0	1	0	43	10	63	1	0	3	2	3
SERVICE CEIL.	11-41	29	31	41	41	36	33	38	21	32	39	40	37	37	38
MAX. SPEED	0-41	8	9	11	11	9	9	8	7	9	9	7	9	9	9
OPT. ALTITUDE	0-31	5	16	25	30	20	15	30	15	25	20	11	14	17	16
CRUIS. SPEED	0-31	7	8	8	9	7	7	5	6	6	6	5	7	6	6
CLIMB RATE	0-15	10	10	12	15	13	13	4	5	3	14	15	14	15	15
FIREPOWER	0-7	6	5	5	5	3	4	5	4	7	3	1	3	4	4
MANOEUVER.	0-7	5	5	4	6	5	5	1	2	0	6	5	6	6	6
VULNERABILITY	0-7	4	4	5	6	6	4	5	5	6	2	2	3	3	5
RADAR	0-7	3	3	3	3	2	2	0	0	5	2	2	2	2	2
REPL. RATE	0-7	4	5	3	2	2	2	2	3	0	3	7	7	5	3
ECM	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N
NIGHT	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

PLANE NUMBER	1-37	15	16	17	18	19	20	21	22	23	24	25	26	27	28
PLANE TYPE	[11]	Frank	Mary	Sonia	Anne	Babs	Lily	Sally	Helen	Peggy	Betty	Nick	George	Rita	Fugaku
ROLE	0-3	1	2	2	2	3	2	2	2	2	2	0	0	2	2
CREW	0-7	1	2	2	2	2	4	6	6	6	6	2	1	7	7
FUEL	1-255	58	79	40	53	33	72	85	101	113	229	63	42	166	245
PAYLOAD	0-63	3	3	2	3	0	6	7	7	8	6	0	1	15	63
SERVICE CEIL.	11-41	36	29	27	28	31	33	33	31	31	28	33	41	33	41
MAX. SPEED	0-41	10	7	7	7	8	8	8	7	8	7	9	9	9	11
OPT. ALTITUDE	0-31	20	13	10	13	15	18	15	16	20	14	23	17	26	32
CRUIS. SPEED	0-31	7	5	5	6	6	6	6	5	6	5	6	6	5	7
CLIMB RATE	0-15	14	7	8	8	12	10	7	6	7	6	12	14	3	2
FIREPOWER	0-7	5	1	1	1	1	2	2	3	3	2	4	6	5	3
MANOEUVER.	0-7	6	3	3	3	3	2	1	1	1	1	4	6	1	0
VULNERABILITY	0-7	5	2	2	2	2	2	2	4	5	2	5	5	4	5
RADAR	0-7	2	0	0	0	0	0	0	0	0	0	2	2	0	0
REPL. RATE	0-7	2	5	4	5	4	3	3	3	2	3	4	3	2	0
ECM	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
NIGHT	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

bombers could strike the Japanese mainland would be destroyed and, finally, Chang Kai Shek's Nationalist government could well be overthrown by a substantial military reverse.

The poorly led Chinese armies were no match for regular Japanese troops. Attacking from north and south, the Japanese forged a corridor along the old railway route from Sienning through Changsha, Hengyang and Lingling to the ancient capital of Kweilin.

A great part of the Chinese army simply vanished. The surviving remnants were pushed back either side of the corridor. By the beginning of December, 1944, the railroad from Hanoi to Hankow was operating again. The Japanese army was reorganizing in preparation for the final drive on Kunming and the Nationalist capital at Chungking. Detached forces were steadily mopping up the few remaining Allied bases in the mountainous eastern pocket.

The very low priority accorded the China-Burma theatre by the Joint Chiefs of Staff in Washington restricted the Allied response to the Japanese offensive to a more or less ineffective air interdiction of supply lines.

It was not until General Albert Wedemeyer replaced General Stilwell that the principal Allied focus shifted from Burma to China.

Claire Chennault, commander of the 14th Air Force, at last found a commanding officer receptive to his perception of the proper employment of US air power. He argued vigorously that with sufficient aircraft and supplies he could sever enemy supply lines, weaken and demoralize their ground forces and provide such air support as would allow the numerically huge Chinese armies to best their hated foes.

The first task facing Wedemeyer on assuming command was to halt the Japanese advance and, if possible, seize the initiative with a determined counter-offensive. Wedemeyer and Chennault worked well together; the fruit of their joint planning became known as *Operation Alpha*.

Air operations in China were completely reorganized. After lengthy debate, Washington agreed to close down the strategic bombing offensive of the Japanese mainland from the bases around Chengtu. The tremendous cost of lifting supplies *over the hump* did not produce a comparable result. Nor did it aid one whit in the defense of China; furthermore, the Marianas offered a much better site for the mighty Superforts.

Wedemeyer was given permission to make some use of the B-29's before they departed for the Pacific.

On the eve of the start of *Operation Alpha*, the 14th Air Force mustered some 700 serviceable aircraft together with an adequate level of munitions, replacements and gasoline. They were at least on par with their adversary. For the first time in their operational history, the Flying Tigers could not use the chronic shortages of manpower and equipment as the excuse for their troubles. They had the tools to get the job done . . .

THE SCENARIO

A quick glance at the map for this scenario will inform you that a different ground scale has been used. It is, in fact, 40 miles per hex. Appropriate modifications have been made to the data to reflect the increase in scale.

For those wishing to experiment further with other ground scales, we recommend you keep within the range of 10-60 miles per hex. It is only maximum speed, cruising speed and radar range which need to be altered although at the larger scales, you should ignore the computer's advice on which squadrons are available for interception and select them directly from the briefing board.

There are a few points to keep in mind when playing this scenario.

FLYING TIGERS - Map

National Border
Front Line

CHINA

Peking
Tiensin
Tsinan
Lingchuan
Anyang
Chengchou
Zhengzhou
Haichow
Suchow
Lanchow
Sian
Nanking
Ankang
Laohokow
Shanghai
Hankow
Hwangchow
Hangchow
Kwangchan
Chengtu
Chungking
Ichang
Sienning
Chengsien
Changteh
Nanchang
Wenchow
Chabua
Ledo
Chihkiang
Changsha
Jorhat
BURMA
Yunnani
Hengyang
Suichuan
Foochow
Kweiyang
Likiang
Lingling
Amoy
Okayma
Kunming
Kweilin
Swatow
FORMOSA
Luichow
Lashio
Nandan
Canton
Guilin
Mandalay
Nanning
Liuzhou
Tien Ho
Hong Kong
Kwang
Kyedow
Hanoi
Haiphong
FRENCH INDOCHINA
SOUTH CHINA SEA
Haikou
HAINAN
Rangoon
THAILAND
LUZON

SCENARIO EIGHT
'FLYING TIGERS'

Allied Commands	Axis Commands
# 1 Chennault	# 1 China
# 2 Hoag	# 2 Burma

FLYING TIGERS - Squadrons

SQN NUMBER	1-255	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
SQN I.D.	[6]	F.1	F.2	F.3	F.4	F.5	F.6	F.7	F.8	F.9	F.10	F.11	F.12	F.13	F.14	F.15	F.16	F.17
PLANE TYPE	1-37	15	15	15	14	14	13	13	13	12	12	12	12	10	10	11	11	25
OFFICIAL EST.	1-31	18	18	18	18	18	18	27	27	27	27	27	27	27	27	18	18	18
INITIAL EST.	1-31	17	16	16	15	15	18	27	27	27	27	27	27	26	26	18	18	18
VETERAN	0-31	6	5	4	3	2	2	1	1	1	1	0	0	2	1	0	0	1
EXPERIENCED	0-31	10	12	11	11	8	6	8	9	8	6	6	5	4	4	4	7	9
FATIGUE	0-7	5	6	6	6	6	6	6	6	6	6	6	6	7	7	6	6	6
NIGHT OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
RECON OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
NAVAL OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
PATHFINDER	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

SQN NUMBER	1-255	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
SQN I.D.	[6]	F.18	F.19	F.20	F.21	F.22	LB.1	LB.2	LB.3	LB.4	LB.5	LB.6	LB.7	LB.8	LB.9	LB.10	B.1	B.2
PLANE TYPE	1-37	25	11	12	12	13	16	16	16	17	17	18	18	18	16	18	21	21
OFFICIAL EST.	1-31	18	18	18	27	18	18	18	18	18	27	18	27	27	18	18	27	27
INITIAL EST.	1-31	18	10	12	20	12	17	17	17	17	26	17	26	27	12	14	26	26
VETERAN	0-31	0	0	2	3	2	2	1	1	1	2	1	2	3	2	2	1	2
EXPERIENCED	0-31	5	2	5	10	5	3	3	6	6	7	7	10	7	6	4	17	17
FATIGUE	0-7	6	7	7	7	6	6	6	6	6	6	6	6	5	5	6	6	6
NIGHT OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
RECON OPS	Y/N	N	N	N	N	N	Y	Y	Y	Y	Y	N	N	N	Y	Y	N	N
NAVAL OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
PATHFINDER	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

SQN NUMBER	1-255	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
SQN I.D.	[6]	B.3	B.4	B.5	B.6	RB.1	RB.2	VF.1	VF.2	VF.3	VF.4	VF.5	VF.6	VB.1	VB.2	VB.3	CF.1	CF.2
PLANE TYPE	1-37	22	22	23	20	19	24	15	15	15	26	26	26	27	27	28	5	5
OFFICIAL EST.	1-31	27	27	27	27	18	27	18	18	18	18	18	18	27	27	18	16	16
INITIAL EST.	1-31	27	27	27	19	18	27	18	18	18	18	18	18	27	27	18	15	16
VETERAN	0-31	4	4	6	2	1	2	1	2	1	4	4	6	2	4	3	0	0
EXPERIENCED	0-31	8	9	9	6	4	8	9	10	10	12	11	11	17	14	15	6	5
FATIGUE	0-7	6	6	6	5	6	6	7	7	7	7	7	7	7	7	7	6	6
NIGHT OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
RECON OPS	Y/N	N	N	N	N	Y	Y	N	N	N	N	N	N	Y	Y	Y	N	N
NAVAL OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y
PATHFINDER	Y/N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N

SQN NUMBER	1-255	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
SQN I.D.	[6]	CF.3	CF.4	CF.5	CF.6	AF.1	AF.2	AF.3	AF.4	AF.5	AF.6	AF.7	AF.8	AF.9	AF.10	AF.11	AF.12	AF.13
PLANE TYPE	1-37	6	6	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
OFFICIAL EST.	1-31	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
INITIAL EST.	1-31	14	14	16	15	15	15	15	15	16	15	16	15	16	16	15	15	16
VETERAN	0-31	0	1	1	1	2	2	3	3	3	4	2	5	4	5	4	3	4
EXPERIENCED	0-31	6	6	9	8	9	9	11	11	11	11	8	10	8	10	10	10	11
FATIGUE	0-7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
NIGHT OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
RECON OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
NAVAL OPS	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PATHFINDER	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

SQN NUMBER	1-255	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
SQN I.D.	[6]	AF.14	AF.15	AF.16	AF.17	AF.18	AF.19	AF.20	AF.21	AF.22	AF.23	AF.24	AF.25	AF.26	AF.27	AF.28	AF.29	AF.30
PLANE TYPE	1-37	2	4	4	4	4	4	3	3	3	3	3	3	2	2	2	2	2
OFFICIAL EST.	1-31	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
INITIAL EST.	1-31	16	14	15	15	16	15	16	15	15	15	15	15	15	15	14	12	15
VETERAN	0-31	3	2	3	3	4	4	2	2	3	3	3	3	2	2	2	3	1
EXPERIENCED	0-31	12	10	10	9	10	10	8	10	10	10	9	9	8	6	6	8	6
FATIGUE	0-7	6	6	6	6	6	6	6	6	6	6	6	6	6	7	6	6	6
NIGHT OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
RECON OPS	Y/N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N	N	N	N	N
NAVAL OPS	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N
PATHFINDER	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

SQN NUMBER	1-255	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102
SQN I.D.	[6]	AF.31	MB.1	MB.2	MB.3	MB.4	MB.5	MB.6	MB.7	MB.8	MB.9	MB.10	HB.1	HB.2	HB.3	HB.4	HB.5	HB.6
PLANE TYPE	1-37	2	8	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7
OFFICIAL EST.	1-31	16	16	16	16	6	16	16	16	16	16	16	16	16	16	16	16	16
INITIAL EST.	1-31	16	15	14	15	15	12	14	16	13	14	15	15	15	15	14	16	16
VETERAN	0-31	3	6	5	4	4	3	4	3	5	6	4	7	6	7	5	6	6
EXPERIENCED	0-31	8	7	6	8	7	8	9	7	7	8	8	5	7	6	8	8	8
FATIGUE	0-7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
NIGHT OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
RECON OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
NAVAL OPS	Y/N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
PATHFINDER	Y/N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	N

SQN NUMBER	1-255	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
SQN I.D.	[6]	HB.7	HB.8	HB.9	SHB.1	SHB.2	SHB.3	SHB.4	VAF.1	VAF.2	VAF.3	VAF.4	VAF.5	VMB.1	VMB.2	VMB.3	VHB.1	VHB.2
PLANE TYPE	1-37	7	7	7	9	9	9	9	4	4	4	4	4	8	8	8	7	7
OFFICIAL EST.	1-31	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
INITIAL EST.	1-31	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
VETERAN	0-31	7	7	5	9	10	11	8	2	3	1	4	3	5	5	4	4	5
EXPERIENCED	0-31	7	4	6	6	6	5	4	13	12	11	10	12	11	10	12	10	10
FATIGUE	0-7	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7
NIGHT OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
RECON OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N
NAVAL OPS	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	N	Y
PATHFINDER	Y/N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N

FLYING TIGERS - Airfields

AIRFIELD NUM.	1-127	1	2	3	4	5	6	7	8	9	10	11
AIRFIELD NAME	[11]	Peking	Anyang	Lingchuan	Chengchou	Nanking	Shanghai #1	Shanghai #2	Hangchow	Hankow #1	Hankow #2	Sienning
LOCATION	(x,y)	30,4	27,8	26,9	26,11	34,14	39,15	39,15	37,16	29,16	29,16	28,18
ASSIGNED SQNS	[4]	-	-	23	15,24	10	18	-	11,35	1,36	9	6,27,28
THEATRE	1-5	1	1	1	1	1	1	1	1	1	1	1
DAM. STATUS	0-15	14	15	14	14	14	12	12	14	12	13	13
DAM.CONTROL	0-3	1	1	1	1	2	1	1	1	1	1	1
SEALED	Y/N	N	N	N	N	N	Y	N	N	N	N	N
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N	N

AIRFIELD NUM.	1-127	12	13	14	15	16	17	18	19	20	21	22
AIRFIELD NAME	[11]	Nanchang	Wenchow	Foochow	Amoy	Swatow	Hong Kong	Tien Ho #1	Tien Ho #2	Shinchiku	Heito	Kwang
LOCATION	(x,y)	29,19	36,20	35,22	33,24	30,26	28,27	26,27	26,27	38,24	38,24	22,29
ASSIGNED SQNS	[4]	5,39	-	13	-	-	4,25	8,29,37	16,34	2	14,40	12
THEATRE	1-5	1	1	1	1	1	1	1	1	1	1	1
DAM. STATUS	0-15	13	14	14	14	14	13	13	14	12	13	14
DAM. CONTROL	0-3	1	1	1	1	1	1	2	1	2	1	1
SEALED	Y/N	N	N	N	N	N	Y	N	N	Y	N	N
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N	N

AIRFIELD NUM.	1-127	23	24	25	26	27	28	29	30	31	32	33
AIRFIELD NAME	[11]	Kep	Gia Lam	Nanning	Chengsien	Rangoon	Kyedow	Mandalay	Lashio	Sian	Ankang	Laohokow
LOCATION	(x,y)	17,29	15,29	19,27	35,17	0,35	0,30	0,28	2,26	20,12	20,15	24,15
ASSIGNED SQNS	[4]	17,26,33	3,30	-	7	-	22,31	21,32,38	19,20	50,51	52	53,55
THEATRE	1-5	1	1	1	1	2	2	2	2	1	1	1
DAM. STATUS	0-15	13	14	13	14	13	12	12	12	14	14	14
DAM. CONTROL	0-3	1	1	1	1	1	2	1	1	1	1	1
SEALED	Y/N	N	Y	N	N	N	N	N	N	N	N	N
ALLIED	Y/N	N	N	N	N	N	N	N	N	Y	Y	Y

AIRFIELD NUM.	1-127	34	35	36	37	38	39	40	41	42	43	44
AIRFIELD NAME	[11]	Ichang	Chihkiang	Chungking	Kwangchan	Hsingching	Chengtu	Kwangiai	Pengshan	Suichuan #1	Suichuan #2	Kweiyang
LOCATION	(x,y)	23,14	21,20	16,18	12,16	12,16	12,17	12,17	11,17	28,22	28,22	16,22
ASSIGNED SQNS	[4]	54,59,87	61,73,88-9	72,77,97-8	70,103	57,104	71,79,106-7	80,108	60,105,109-10	56,64,94-5	58,63,96	62,74,90,101
THEATRE	1-5	1	1	1	1	1	1	1	1	1	1	2
DAM. STATUS	0-15	14	14	14	15	15	15	15	15	14	14	15
DAM. CONTROL	0-3	1	1	2	1	1	1	1	2	2	2	2
SEALED	Y/N	N	N	N	N	N	N	N	N	N	N	N
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

AIRFIELD NUM.	1-127	45	46	47	48	49	50	51	52	53	54	55
AIRFIELD NAME	[11]	Kunming #1	Kunming #2	Likiang	Yunnani #1	Yunnani #2	Myitkyina	Chabua #1	Chabua #2	Jorhat #1	Jorhat #2	Ipin
LOCATION	(x,y)	10,24	10,24	8,21	7,23	7,23	3,23	0,20	0,20	0,21	0,21	14,19
ASSIGNED SQNS	[4]	65,75,91-2	66,76,93,102	67	69	68	81	82	83	84,86	85	78,99,100
THEATRE	1-5	1	1	2	2	2	2	2	2	2	2	1
DAM. STATUS	0-15	14	14	15	14	14	11	15	15	15	15	14
DAM. CONTROL	0-3	2	2	1	1	1	0	3	3	3	3	1
SEALED	Y/N	N	N	N	N	N	N	Y	Y	Y	Y	N
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

FLYING TIGERS - Shipping Lanes

UNIT #	1-63	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
I.D. CODE	[1]	P	P	P	P	P	P	P	P	P	P	H	H	H	H	H	H	S	S	S	S	S
LOCATION	(x,y)	32,5	33,5	34,6	35,5	36,6	37,5	38,6	39,6	40,7	41,7	40,8	39,8	38,9	37,9	36,10	35,10	36,11	37,11	37,12	38,13	39,13
DENSITY	0-7	7	7	5	5	5	7	5	5	6	4	4	4	4	7	3	3	3	3	3	3	3
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

UNIT #	1-63	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
I.D. CODE	[1]	S	S	S	S	S	S	S	W	W	W	W	F	F	F	O	K	K	K	K	K	K
LOCATION	(x,y)	39,14	41,14	40,15	40,16	39,16	38,17	39,17	39,18	39,19	38,20	37,20	37,21	37,22	36,23	37,23	36,24	35,24	34,25	33,25	32,26	31,26
DENSITY	0-7	3	7	7	5	6	6	5	5	5	6	6	6	6	4	5	5	5	5	5	5	5
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

UNIT #	1-63	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
I.D. CODE	[1]	K	K	K	K	K	K	K	K	K	K	K	K	K	K	N	N	R	N	N	N	N
LOCATION	(x,y)	30,27	29,27	28,28	27,27	27,28	26,29	25,29	24,30	24,31	24,32	24,33	24,34	24,35	23,30	22,31	21,30	20,30	19,30	18,31	17,30	23,29
DENSITY	0-7	5	5	7	7	7	3	3	4	3	3	3	3	3	6	7	6	4	4	6	7	6
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

FLYING TIGERS - Flak Units

UNIT #	1-63	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
I.D. CODE	[1]	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	A	A	A	A	A
LOCATION	(x,y)	39,15	29,16	38,24	26,20	25,21	22,23	20,25	21,26	26,17	28,18	15,29	16,30	2,26	20,26	28,27	27,26	15,18	10,24	0,20	0,21	12,17
DENSITY	0-7	12	12	8	4	4	4	4	4	10	10	12	12	4	8	12	8	4	8	8	8	4
ALLIED	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y

FLYING TIGERS - Centres

CENTRE NUMBER	1-63	1	2	3	4	5	6	7	8	9
CENTRE NAME	[11]	Peking	Tiensin	Anyang	Lingchuan	Chengchow	Zhengzhou	Tsinan	Suchow	Haichow
LOCATION	(x,y)	30,4	31,4	27,8	26,9	26,11	28,11	32,8	32,11	34,11
POPULATION	0-3	0	0	0	0	0	0	0	0	0
INDUSTRY	0-3	2	1	1	2	2	1	1	1	1
PORT FACILITIES	0-3	0	2	0	0	0	0	0	0	3
COMMUNICATIONS	0-3	2	2	2	0	2	3	3	3	2
ALLIED	Y/N	N	N	N	N	N	N	N	N	N

CENTRE NUMBER	1-63	10	11	12	13	14	15	16	17	18
CENTRE NAME	[11]	Nanking	Shanghai	Hangchow	Chengsien	Hwangchow	Hankow	Sienning	Nanchang	Wenchow
LOCATION	(x,y)	34,14	39,15	37,16	35,17	32,17	29,16	28,18	29,19	36,20
POPULATION	0-3	0	0	0	0	0	0	0	0	0
INDUSTRY	0-3	2	3	2	1	1	3	2	2	1
PORT FACILITIES	0-3	0	3	2	0	2	3	1	0	1
COMMUNICATIONS	0-3	2	3	2	1	3	3	3	2	0
ALLIED	Y/N	N	N	N	N	N	N	N	N	N

CENTRE NUMBER	1-63	19	20	21	22	23	24	25	26	27
CENTRE NAME	[11]	Foochow	Amoy	Swatow	Hong Kong	Canton	Tien Ho	Okayma	Kwang	Haikou
LOCATION	(x,y)	35,22	33,24	30,26	28,27	27,26	26,27	38,24	22,29	22,32
POPULATION	0-3	0	0	0	0	0	0	0	0	0
INDUSTRY	0-3	0	0	0	2	1	3	3	0	0
PORT FACILITIES	0-3	1	1	1	3	2	1	2	1	1
COMMUNICATIONS	0-3	1	1	1	2	2	2	0	1	1
ALLIED	Y/N	N	N	N	N	N	N	N	N	N

CENTRE NUMBER	1-63	28	29	30	31	32	33	34	35	36
CENTRE NAME	[11]	Haiphong	Hanoi	Nanning	Liuzhou	Nandan	Guilin	Luichow	Kweilin	Lingling
LOCATION	(x,y)	16,30	15,29	19,27	21,26	20,26	19,25	20,25	20,24	22,23
POPULATION	0-3	0	0	0	0	0	0	0	0	0
INDUSTRY	0-3	2	2	1	0	1	1	1	1	1
PORT FACILITIES	0-3	3	3	0	0	0	0	0	0	0
COMMUNICATIONS	0-3	3	3	2	2	2	2	2	2	2
ALLIED	Y/N	N	N	N	N	N	N	N	N	N

CENTRE NUMBER	1-63	37	38	39	40	41	42	43	44	45
CENTRE NAME	[11]	Hengyang	Changsha	Rangoon	Kyedow	Mandalay	Lashio	Lanchow	Sian	Ankang
LOCATION	(x,y)	25,21	26,20	0,35	0,30	0,28	2,26	11,10	20,12	20,15
POPULATION	0-3	0	0	0	0	0	0	1	1	1
INDUSTRY	0-3	1	2	2	1	1	1	0	0	2
PORT FACILITIES	0-3	0	0	3	0	0	0	0	0	0
COMMUNICATIONS	0-3	3	3	2	2	2	1	1	1	1
ALLIED	Y/N	N	N	N	N	N	N	Y	Y	Y

CENTRE NUMBER	1-63	46	47	48	49	50	51	52	53	54
CENTRE NAME	[11]	Laohokow	Ichang	Changteh	Chihkiang	Chungking	Kwangchan	Chengtu	Army 1	Army 2
LOCATION	(x,y)	24,15	23,17	24,20	21,20	16,18	12,16	12,17	26,22	27,21
POPULATION	0-3	1	1	2	2	3	1	1	0	0
INDUSTRY	0-3	2	2	2	2	2	2	3	0	0
PORT FACILITIES	0-3	0	0	0	0	0	0	0	0	0
COMMUNICATIONS	0-3	1	2	2	2	2	2	3	3	3
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y

CENTRE NUMBER	1-63	55	56	57	58	59	60	61	62	63
CENTRE NAME	[11]	Suichuan	Army 3	Kweiyang	Kunming	Likiang	Yunnani	Ledo	Chabua	Jorhat
LOCATION	(x,y)	28,22	17,23	16,22	10,24	8,21	7,23	1,20	0,20	0,21
POPULATION	0-3	1	0	2	3	0	0	2	1	1
INDUSTRY	0-3	2	0	2	3	2	2	2	3	3
PORT FACILITIES	0-3	0	0	0	0	0	0	0	0	0
COMMUNICATIONS	0-3	3	3	2	3	3	3	3	2	2
ALLIED	Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y

TIGERS - Time

DATE	1-31	14
MONTH	1-12	12
YEAR	0-63	44
LENGTH	1-31	7
DAWN	3-10	7
DUSK	15-22	18
MOON	0-27	5
F'CAST	0-3	0

TIGERS - Weather

C = 2 W = 3	C = 1 W = 2	C = 2 W = 3
C = 3 W = 4	C = 3 W = 2	C = 1 W = 4
C = 4 W = 3	C = 1 W = 3	C = 1 W = 3
C = 3 W = 3	C = 3 W = 4	C = 2 W = 4

TIGERS - Doctrine

NATIONALITY		AXIS	ALLIES
MISSIONS	0-15	2	8
POPULATION	0-7	3	0
INDUSTRY	0-7	7	7
COMM.	0-7	6	7
PORT FAC.	0-7	0	6
AIRFIELDS	0-7	7	3
RADAR	0-7	0	0
SEA LANES	0-7	0	5
SUPREME COM.	0-7	4	6
C-IN-C	0-7	4	6
GROUND ECM	0-7	0	0
ORD. EFFECT	0-3	3	3
AA FIRE CONT.	0-3	2	1

TIGERS - Axis Commands

	NAME	CURSOR	THRSH.	PRIOR.
C-IN-C	Tojo	1	N.A.	N.A.
CMDR #1	China	1	40	4
CMDR #2	Burma	1	0	5
CMDR #3	-	-	-	-
CMDR #4	-	-	-	-
CMDR #5	-	-	-	-

TIGERS - Allied Commands

	NAME	CURSOR	THRSH.	PRIOR.
C-IN-C	Wedemeyer	2	N.A.	N.A.
CMDR #1	Chennault	2	390	7
CMDR #2	Hoag	2	10	6
CMDR #3	-	-	-	-
CMDR #4	-	-	-	-
CMDR #5	-	-	-	-

1. Supply stockpiles, sensitive targets to both sides, are represented by industrial values in the centre data base. There was little real industry to speak of.

2. Three Allied centres are represented by army symbols. These were large concentrations of Chinese troops and munitions against which the Japanese directed a great deal of attention.

3. The air war in Burma was in its closing stages at this time. The Japanese drive into India had culminated in two defeats at the battles of Imphal and Kohima. The Japanese army there was in retreat and precious few new aircraft were made available to the air forces there. The contest is very much of a sideshow and has been included only for historical interest.

* * * * *

The major problem facing the Allies in this scenario is the distance separating many of their airfields. This will make the formation of large missions very difficult. It is better to use smaller concentrations of aircraft and strike at multiple targets.

Shipping lanes are probably the most attractive target as they are dense and tricky to defend. Other possible targets, especially for the heavy bombers, are communications and industrial (supply stockpiles) centres.

The Japanese have a tough fight ahead. The Allies have numerical parity and a substantial advantage in aircraft performance and crew experience. By way of compensation, they have less to do. The most profitable targets are Allied airbases and communications centres.

The absence of radar facilities for both sides is offset to some degree by the change in scale. At 40 miles per hex, air formations move more slowly across the map giving more time for interception.

SOME VARIATIONS

There are numerous changes which can be made to both sides to reflect the possible *what-ifs* associated with this campaign.

1. Throughout the war, both the Japanese Army and Navy pursued a narrow and elitist policy of aircrew training. The heavy pilot losses of 1942-1944 were more than the restricted training programmes could replace. As a direct consequence, by late 1944, whole air units would commonly have no experienced pilots at all. The loss rates in such units were very high. To examine the effect of a more enlightened replacement policy, increase the number of experienced aircrew in each Japanese squadron by 6.

2. In the last year of the war, Japan developed some excellent airframes; most notably the Frank (Ki-84) and George (N1K2-J) single-engined fighters. Although these types were often plagued by power plants which seldom reached their rated horsepower, in the hands of an experienced airman they were a match for the best of the Allied fighters. In this variant we can take some liberty with history and assign an additional 6 squadrons, equipped with these fighters, to the China theatre. These are identified in the squadron data base as Nos. 41-46. Allocate them any way you like between airfield Nos. 4, 9-12, 18, 19, and 22-25.

3. By the time the Japanese realized the value of a super-heavy bomber, the course of the war had swung decisively against them. The Nakajima Aircraft Company had developed a four-engined heavy bomber prototype (designated G8N1 and code-named Rita by the Allies) with exceptional range and payload capacity if not an equivalent level of armament or protection. Only a dozen or so aircraft were ever completed and these saw use as long range transports. There are 2 squadrons of Ritas in the data base (Nos. 47-48). Add these to airfield No. 6. Their employment can make things just a bit tricky for the Allies. We can take an even bigger step into fantasy and examine what may have happened had the Japanese been able to develop their *really* big bomber. In early 1943, Nakajima began design work on a gigantic, six-engined bomber capable of undertaking combat operations against the US mainland from bases in Japan! The G10N1 Fugaku (Mount Fuji) project never got further than the development stage. How effective would a single *kokutai* (squadron) of these massive aircraft have been? Add squadron 49 from the data base to airfield No. 6.

4. Of all the Allied theatres of World War II, it was always the China-Burma theatre which had the lowest priority. At any stage of 1944, additional aircraft could have been despatched to Wedemeyer, albeit at the expense of other theatres. The Allies have 10 additional squadrons in the data base (Nos. 110-119); 5 sqns of Mustangs, 3 of Mitchells and 2 of Liberators. Add these to any Allied airfield in theatre 1.

[The task of pasting up the map for this scenario brought back splendid memories. Some years ago, a group of six die-hard boardgamers embarked upon a full campaign game of SPI's *War in the Pacific*. I had the honour of commanding the Emperor's forces in China and South East Asia. We spent two real years, albeit only once a week, in reaching a conclusion. Those were the days... *Ed.*] ◆

BEWARE

During the course of the development of this scenario, a small problem was detected in the routines which govern the computer's movement of squadrons to form-up points. The computer will not allow a squadron assigned to a *mission* to fly over enemy territory until after the form-up point has been reached. This precaution was installed to prevent squadrons from straying into enemy air space at the wrong time. We didn't count on the possibility of convoluted front lines of the type found in this scenario.

When flying its squadrons to their form-up point, the computer will do a reasonable job of avoiding *dead-ends*; however, it cannot back-track so you must be careful when mapping to avoid generating a *black hole*. In the original version of the game map for *Flying Tigers*, hex 8,29 was Allied controlled. Have a look at the map and you'll see what I mean about potential traps. In this instance, the dilemma was cured by a lightning ground offensive; hex 8,29 is now under Japanese control.

It is very easy to tell when this bug (sorry, Roger... feature!) happens to you. The game will come to a full stop!

The condition occurs only to computer controlled missions. Human commanders are at liberty to select whatever routes they like for their aircraft.

PROGRAMMING AND GAME DESIGN

By Roger Keating and His Computer

There are two machine code listings included with this Issue's article. The first is a message for machine code programmers and the second is an interesting routine for calculating percentages in machine language.

Some Reflections on Intelligence··
(the computer's - not mine!)

Commercial wargames have a history stretching back over the last 30 years. During that time, certain standards have been adopted that speed play and enhance enjoyment of the hobby. Unfortunately, it also means that anyone new to the hobby has to go through an ever-increasing learning process which takes a great deal of time and, nowadays, a fair amount of money.

This has meant that the average age of gamers has been increasing steadily as more of the younger gamers head toward D&D or other role-playing games. (Incidently, as these games mature, they seem to be following the same pattern of development as historical games.) In short, as the level of complexity and sophistication increase, then so does the difficulty of introducing new blood into the hobby.

Computer simulations have the capacity to break this cycle and attract a wider audience. I am greatly encouraged in this belief by the number of responses we have received from people whose first experience with the pleasures of historical gaming have been via one of our games.

Not long ago, it was regarded by some as impossible for a computer to play a decent game of chess. The number of permutations after a few moves would quickly overpower any hard-working CPU. A few years later saw the first computer beat a grand master.

There are many limitations in computer programming and I would like to outline a few of them here. Computers think in numbers (in my games, they are almost always integers between 0 and 255) and it takes a great deal of experimentation to turn this ability into a challenging opponent. However, the computer can be given some advantages.

It can calculate faster so that it is no problem for the computer to do 100,000 computations before making a single decision. This ability can be handy when deciding a combat response or moving one hex.

It can be given more resources to help it. The 'enhanced' players in *Reach for the Stars* have between 100 and 200 extra points in each production phase. The flexibility this affords to the computer must be balanced by native human intelligence and good judgement.

The computer can have access to hidden data. In *Battlefront*, the computer issues its orders before the human player, but imagine the consequences which could arise from implementing this the other way around. How much more effective would the computer be if its decisions were made with the knowledge of your impending attacks, support point allocation and whatever?

And, of course, a computer can cheat. The computer can use loaded dice in any computation.

All of the above are techniques that are available to any budding wargame designer; and more than a few of them are in use in very popular games currently on the market. However, they have one fatal flaw.

If a game is to be enjoyable, the human must have a chance to win. If the computer uses any

of the above artifices, it becomes predictable and easy to manipulate into making the wrong decision. It is unable to discern a truly dangerous situation. Most of you will have utilized this inability at one time or another to rub out your computer opponent. I know I certainly have!

To get around these problems, some intelligence (or perhaps reduced stupidity) has to be programmed into the initially dumb machine. By limiting the human to options that

0800	49 66 20	086C	75 6C 61
0803	79 6F 75	086F	72 6C 79
0806	20 63 61	0872	20 69 66
0809	6E 20 72	0875	20 79 6F
080C	65 61 64	0878	75 20 68
080F	20 74 68	087B	61 76 65
0812	69 73	087E	20 61 6E
0814	79 6F 75	0881	79
0817	20 6F 62	0882	71 75 65
081A	76 69 6F	0885	73 74 69
081D	75 73 6C	0888	6F 6E 73
0820	79 20 68	088B	20 6F 72
0823	61 76 65	088E	20 69 6E
0826	20 73 6F	0891	74 65 72
0829	6D 65	0894	65 73 74
082B	69 6E 74	0897	69 6E 67
082E	65 72 65	089A	72 6F 75
0831	73 74 20	089D	74 69 6E
0834	69 6E 20	08A0	65 73 2E
0837	6D 61 63	08A3	53 65 6E
083A	68 69 6E	08A6	64 20 74
083D	65 20 6C	08A9	68 65 6D
0840	61 6E 67	08AC	20 74 6F
0843	75 61 67	08AF	20 6D 65
0846	65 2E	08B2	20 61 74
0848	49 20 77	08B5	20 50 4F
084B	6F 75 6C	08B8	20 42 6F
084E	64 20 6C	08BB	78 20 31
0851	69 6B 65	08BE	35 37 2C
0854	20 74 6F	08C1	57 65 73
0857	20 68 65	08C4	74 20 52
085A	61 72 20	08C7	79 64 65
085D	66 72 6F	08CA	2C 20 41
0860	6D 20 79	08CD	75 73 74
0863	6F 75 2C	08D0	72 61 6C
0866	70 61 72	08D3	69 61 32
0869	74 69 63	08D6	31 31 34

[If you can read this you know more about machine code programming than I do. I just hope it's not illegal! Ed.]

```
0800                1 ;
0800         .      2 ;
0800         .      3 ;PERCENTAGE SUBROUTINE
0800                4 ;
0800                5 ;
0800                6 ;This routine finds (l) as a
0800                7 ;percentile of (ml) rounded up.
0800                8 ;If (l) = 100 and (ml) = 345
0800                9 ;then 7 will be returned, i.e.
0800               10 ;0 = 100% & 9 = 10%
0800               11 ;therefore 7 = 30% (29%)
0800               12 ;
0800               13 L        epz $2
0800               14 H        epz L+$1
0800               15 ML       epz L+$2
0800               16 MH       epz L+$3
0800               17 HXL      epz L+$4
0800               18 HXH      epz L+$5
0800               19 ;
0800               20 PERCENT:
0800               21 ;multiply (l) by ten
0800  06 02        22          asl  L
0802  26 03        23 ..       rol  H
0804               24 ;
0804  A6 03        25          ldx  H
0806  A5 02        26          lda  L
0808               27 ;
0808  06 02        28          asl  L
080A  26 03        29          rol  H
080C  06 02        30          asl  L
080E  26 03        31          rol  H
0810               32 ;
0810  18           33          clc
0811  65 02        34          adc  L
0813  85 02        35          sta  L
0815               36 ;
0815  8A           37          txa
0816  65 03        38          adc  H
0818  85 03        39          sta  H
081A               40 ;
081A               41 ;y = 0 If 10%
081A               42 ;    9 If 100%
081A               43 ;
081A  A0 00        44          ldy  00
081C  A5 05        45          lda  MH
081E  85 07        46          sta  HXH
0820  A5 04        47          lda  ML
0822  85 06        48          sta  HXL
0824               49 ^0:
0824  A5 07        50          lda  HXH
0826  C5 03        51          cmp  H
0828  F0 04        52          beq  >2
082A  B0 1D        53          bge  >8
082C  90 06        54          blt  >4
082E               55 ^2:
082E  A5 06        56          lda  HXL
0830  C5 02        57          cmp  L
0832  B0 15        58          bge  >8
0834               59 ^4:
0834  C8           60          iny
0835  C0 09        61          cpy  09
0837  B0 10        62          bge  >8
0839               63 ;
0839  A5 04        64          lda  ML
083B  18           65          clc
083C  65 06        66          adc  HXL
083E  85 06        67          sta  HXL
0840               68 ;
0840  A5 05        69          lda  MH
0842  65 07        70          adc  HXH
0844  85 07        71          sta  HXH
0846  4C 24 08     72          jmp  <0
0849               73 ^8:
0849  8C 53 08     74          sty  SCR
084C               75 ;
084C               76 ;return 0 = 100%
084C               77 ;       9 = 10%
084C               78 ;
084C  A9 09        79          lda  09
084E  38           80          sec
084F  ED 53 08     81          sbc  SCR
0852  60           82          rts
0853               83 ;
0853  00           84 SCR      hex 00
0854               85          end
```

Writing exclusively in machine language produces the occasional problem (this has nothing to do do with drinking problems) where it would be convenient to jump into BASIC for a few microseconds and then return to the game. Finding the percentage losses of battalions, regiments and divisions in *Battlefront* represents such a case. The code above is a subroutine that will return a percentile of loss (i.e. 0 = 91%-100%, 9 = 1%-10%) that is used for display purposes. The routine can be easily converted to give the real percentage but that would take a fraction longer to calculate. Note that it is simpler and much quicker to multiply the first value by 2 and then by 8 and sum the results rather than more conventionally by 10.

would be available at that level of command, the computer has a limited number of reasonable choices at all times. (In *Battlefront*, for example, you just cannot pick up a battalion, drive it through the forest, around the back of the hill, slide it deftly through a single, one-hex wide gap in your opponent's front and finally place it across a vital communication line thus putting his entire army out of supply!)

If the computer is provided with a some sensible 'rules of thumb' to help it evaluate the situation, even random selection of these limited choices will produce a reasonable game.

The difficulty in taking this approach is the design and implementation of the mechanisms which will drive the utilities used by the human and the computer. They must be the same!

The movement routines in *Battlefront* involve 18 separate steps (or rules) when moving to an objective and many more for deploying toward the enemy. This makes it difficult for the human player to find the hidden method that will beat the computer every time. Remember that the computer comes to each game fresh. Try sitting down to a game of Saipan and winning on the first attempt. Few battles in history have been fought twice!

Experience has proved to be a great teacher. I actually tried to do a game on the invasion of Crete in 1981 (well before knowing Ian) and had to give up, finally, frustrated by the inability of the computer to cope with that highly complex battle. Now I can sit down to the Crete scenario of *Battlefront* and have the satisfaction of seeing those problems disappear before my eyes.

A Plug for
Reach for the Stars

It was with some surprise and a great deal of satisfaction to see the *Reach for the Stars* tournament at Origins '86. I have run a number of tournaments in Australia over the last couple of years, generally using a 4 player, 40 turn standard game. (Unfortunately, I am usually disqualified from playing as some cynical people believe that there may well be certain secret Control keys

MORE QUESTIONS
(More Answers. . .)

Q. In Issue 2 of *Run 5*, you state that the current version of *Carriers at War* is 1.1. My disk says version 1.2. Please explain?

A. Well, there was a bit of a mistake. Version 1.2 is the current version. Gregor has been soundly chastised.

Q. My submarines in *Carriers at War* don't seem to be very effective. How can I get them to sink more ships? How far do subs patrol from their start hex?

A: The primary role of submarines in *Carriers at War* is reconnaisance. Subs rarely sank warships steaming at more than 18-20 knots but it can happen, especially if a ship has taken damage. Since *Carriers at War* excludes the vast majority of merchant ship movements from play (they are irrelevant to the time frame), it thereby excludes the vast majority of victims. Submarines do not move, *per se*, from their patrol hex, however they are capable of extending their influence for up to six hexes depending on the values given for depth and speed in the design routines.

Q. Is there any way of issuing a printer code starting with the <ESC> key in *Carriers at War* or *Europe Ablaze*?

A: There is no way of using the <ESC> key for printer codes. The matter has been corrected in *Battlefront*.

Q. Why do I get a "Seaplane Tender at Sea" message when I try to use any of the carriers I have created in my own scenarios.

A. Carriers and seaplane tenders have the same ship class (0). They are distinguished by the Y/N answer in the seaplane category. If you answer Y, the computer assumes that the vessel is a seaplane tender and will not allow planes to be launched unless the ship is anchored.

Q. The Final Countdown scenario lists the displacement of the *Nimitz* as 54. The maximum value for displacement is 31. Which is correct?

A. 31 is the maximum value you can enter. Use it.

Q. Why and when are ships 'removed' and 'withdrawn'? Are damage points awarded in categories or are they individually calculated?

A. Task Forces are 'withdrawn' under a 'general withdrawal order' which is automatically issued by the computer. It does this when it thinks that things are going so badly for your side that the only sane course is to run away. It is done automatically to restrain the notorious indifference of wargamers to casualty levels and is calculated on the numbers of carriers still extant as compared with the initial number.

Individual ships are 'removed' when the computer judges that they are too badly damaged to continue fighting. Damage points are awarded for the damage sustained at the time of withdrawal.

Damage points are individually awarded. The word categories are merely indicators of the actual damage to a ship.

Q. I still cannot get the *AV Tangier* to do anything with its seaplanes in the Coral Sea scenario. What is going on?

A. If a seaplane tender is anchored and at least one search bearing is turned on then the computer will automatically launch seaplanes on search bearings. The seaplane tender must be at a designated anchor point. Anchor points can be designated as any shoal hex or at any ocean hex adjacent to a land hex. A port hex will not work. Moreover, the Allied anchor point was omitted from the Coral Sea scenario. It will have to be added if the luckless *AV Tangier* is to finally get to fly its planes. Make the coastal hex adjacent to Noumea the anchor point. In all other scenarios, the issuing of the anchor order should work.

ERRATA. The US destroyer listed as DD 778 Masey in *Run 5*, Issue 2 is actually the Massey (Lance E.).

BATTLEFRONT ERRATA

The extended development time that we have been able to devote *Battlefront* has, among other things, resulted in tracking down of some of the peculiarities that happen on the margin of the program. None of the features (a trusty euphemism for *bug*) described below will stop you from playing and enjoying *Battlefront* but they could leave you a little puzzled.

The current version of *Battlefront* is 1.2. Mistakes listed under the Version 1.1 heading also apply to Version 1.0.

Version 1.0 (Apple Only)

The handicapping system in V1.0 does not work reliably. The handicapping is simply a multiplication of the final points and does not affect the operation of the program in any way. However, the point totals at the end of the game will be incorrect if any handicapping has been selected. The <EVEN> line should always be selected. If you do wish to use handicapping, simply apply the following multipliers to your final score; major (50%), minor (25%), slight (12.5%).

Version 1.1 (Apple and C-64)

Objectives taken on very last turn will not contribute their points per turn or their end of game points to the Victory Point total. This only applies to objectives taken on the very last turn. Make a manual adjustment; Menu 6 at the end of the game will inform you if any objectives fall into this category.

If a unit is locked onto an enemy battalion using the <ENEMY II> line from the <READY> state and that target unit is KIA'd then a Divisional HQ (of either side) may be treated as a reinforcement for the rest of the game. You can tell if this happens to you by the fact that the HQ will appear on the map but be scheduled to arrive (see Menu 5 - Unit Status) on the following turn. Please note it is very unlikely for this to happen.

Under the current menu structures it is possible to save a game, edit the data using the creation routines and then restart the game. The behaviour of the program is not guaranteed under these circumstances. The only absolutely safe procedure is to clear the unit data completely and start again.

Units designated as reinforcements on Turn 1 may appear momentarily on the start screen once you have begun the game. This is a purely cosmetic problem and will not affect play.

You will not be permitted to enter a HQ arrival date greater than 31 even though the screen shows a value of up to 63 is allowed.

It is important that all divisional assets are attached to a regiment when created, especially if they are scheduled as reinforcements.

Do not use the <STORE> and/or <RECALL> functions with divisional assets.

In the C-64/128, the last save game location does not work. If a file is saved to the last location it will not appear in the catalog listing once the machine is restarted. To recover the file restart the machine and type the following.

```
LOAD "BF",8 (RET)
POKE 2047,255 (RET)
RUN (RET)
```

The file will now reappear on the catalog listing. It must be saved to another location immediately, otherwise the problem will recur once the machine is switched off again.

The Guadalcanal scenario, in fact all *Battlefront* scenarios, are recognised as scenario disks and accessed through the scenario menu rather than the save game menu. This method is in contrast to *Europe Ablaze* and *Carriers at War*. When prompted to select <SCENARIO> or <DISK>, insert the Scenario disk into your drive, select <SCENARIO> and type (RET).

For cosmetic reasons we have changed the colour of Allied units in Version 1.2. They are now a delicious shade of green (not trained. . . errr. . . blue?).

In the Guadalcanal scenario, the location of the Bloody Ridge objective is mistakenly given as 13,8 in the Axis data. It should be 13,6 as in the Allied data.

I have now received three letters complaining about the absence of the marine parachute battalion in the American Order of Battle. It is there, combined with the raider unit under the (Com)posite I.D. Neither were large enough to deserve separate identities. If you like, you can change the Com battalion's class from 0 to 3. This will bring up the parachute infantry symbol.

Finally, if you do have an older version, don't panic. There is no need to send it for replacement unless you are a keen scenario designer, and even then nothing will go wrong provided you're careful. ◆

GUADALCANAL
An After Action Report
(or 'The Big Match')

Guadalcanal is a scenario for Battlefront, first published in Issue 3 of our magazine. In fact, it is the first scenario we developed for the game.

There are some subtle considerations here, requiring balanced decisions from both sides to avoid disaster. As such it provides an excellent illustration for many of the key processes in mastering the game.

THE BUILD UP

Two of our game testers were volunteered and the big match between Malcolm Power (United States) and Andrew Taubman (Japan) is replayed below for your interest and entertainment. The historical scenario was chosen. Comments from both Generals and the moderator (yours truly, Gregor Whiley) are recorded as appropriate as well as locker room interviews at half and full time.

To refresh your memory the forces available to each side are shown in the accompanying 'Order of Battle' chart elsewhere on this page. It's also not a bad idea to find your copy of Issue 3 for more detailed data.

The Japanese outnumber the Americans at the start and have the initiative, more or less; although they are weak on the Matanikau River. However, the Japanese supply situation is precarious. Their divisional supply is poor, requiring them to be very cautious when attacking as their supplies, once exhausted, will take forever to replenish.

The Americans have adequate supply, but absolutely no room to manoeuvre. Their bridgehead is so constricted that there is usually too little room to put formations into reserve for the rest that they may require.

The Japanese commander must carefully exert increasing pressure on the Americans with the aim of slowly constricting their perimeter. The only devastating weapon at his disposal is the battleship bombardment which *may* arrive at night, and can be devastating when it works.

The Americans should try to expand their bridgehead early, before the Japanese reach full strength. Then they must hang on until the 7th Marines arrive. With their large artillery units and air power the Americans also have some powerful offensive assets should they choose to use them. **(See fig 1 for the initial positions.)**

THE GAME.
DAY 1.

THE PLAN

AMERICAN - The 5th Marines will advance to the Matanikau River to expand the bridgehead. The composite raider/parachute battalion is sent to reinforce the USN Coastal Detachment which is the weakest formation. If the battalion manages to get into a reasonable position it can be switched later to the 1st Marines who will then defend from Bloody Ridge to Tenaru. The USN Coastal Detachment can be put into reserve or switched to the other flank.

JAPANESE - All attacking is to be done on the eastern bank of the Lunga River. The weak and tired Construction Brigade is to move up to the 5th Marines in the west to pin any advance. Other units on the eastern side of the Lunga are to pin the Americans.

THE RESULTS - The advance of the 5th Marines did not go well and they failed to reach the Matanikau, with the exception of their gallant, though overbold, artillery

battalion. The dispirited Construction Brigade is hurled against the artillery battalion on the Matanikau and takes medium losses from the 5th Marines.

Emboldened by an unprecedented 5 air points the Japanese attack at Tenaru with a prepared assault taking medium losses. However, the USN Coastal Detachment battalion in Tenaru routs but does *not* run!

During the night, the 8th Base Force attack across the Tenaru. No naval support arrives and they take medium losses. The USN Coastal Detachment battalion vacates Tenaru and it falls to the 8th Base Force.

Things have not begun well for the Americans.

DAY 2

THE SITUATION

Tenaru has fallen in the night, but the Japanese have taken some casualties and are less than impressed with the performance of the IJN. The Americans will have to put in some hard work to restore their position.

THE PLAN

AMERICAN - Taking advantage of good air support, we launch counter-attacks in both directions. The battalion sent to reinforce the USN Coastal Detachment has still not arrived (it fell into the swamp); but it should make its presence felt eventually. The 5th Marines must push on to the Matanikau River to rescue the trapped artillery unit.

JAPANESE - We will attack the isolated American artillery unit in the west. The 28th Infantry in Tenaru will rest. The 124th Infantry will take up the attack in the east.

THE RESULTS - The USN Coastal Detachment with heavy support crushes the 8th Base Force battalion in Tenaru, retaking the town from the routing enemy. In the west, the 5th Marine artillery unit is eventually KIA'd. The 5th Marines assault and one of the Construction Brigade battalions is wiped out. No naval support arrives this night.

DAY 3

THE SITUATION

The American line is re-established on the Tenaru River. American casualties are very
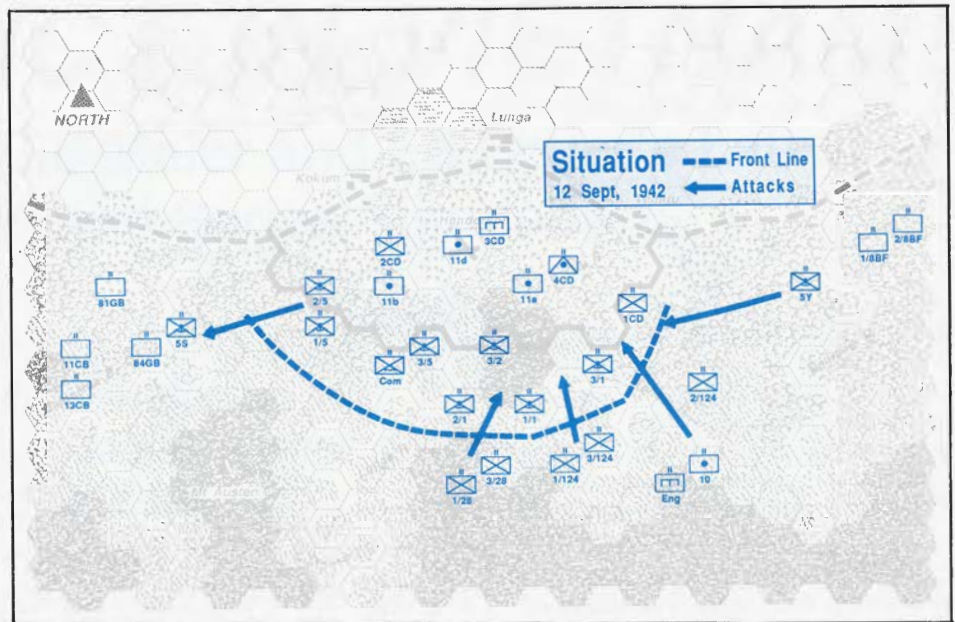
Fig 1. American plans are to advance to the Matanikau River before the lead elements of the Japanese 2nd Division arrive and to hold on grimly elsewhere. The Japanese hope to keep their enemy contained to the east of the Matanikau and apply such pressure with the 28th and 124th Regiments that the expected reinforcements will be able to drive onto Henderson Field.

light. In the west the Matanikau River has still not been reached. Strong Japanese reinforcements have started arriving. The Japanese have taken significant casualties, but they are keeping up a constant pressure. Japanese regimental supply is beginning to feel the pinch.

THE PLAN

AMERICAN - Limited attacks (probes) on both fronts. This will allow employment of strong support with least risk to ground troops. The 1st Marines in the fort line will defend as usual.

JAPANESE - The 124th Infantry will assault at Tenaru. Constant pressure in east. The 4th Infantry and Garrison Brigade will assault in the west. No let up on either front.

THE RESULTS - The Japanese continue to attack on both fronts. They take considerable casualties. The Americans are inflicting casualties both in defense and in their own counter-attacks. The Japanese are finding it very tough. A 1st Marine battalion routs from constant minor combat allowing a Japanese surge in the southeast. The 124th Infantry routs virtually *en masse*, leaving the Japanese position on the Tenaru very shaky. Ten support points are promised for the evening bombardment, but fail to arrive. The IJN has lost its way again.

DAY 4

THE SITUATION

(See fig 2.) The Americans have not been able to reach the Matanikau. The 1st Marine line is also under pressure. However, the Tenaru line appears secure for the moment. The Americans have handed out many more casualties than they have have received. The Japanese position is wobbly. Casualties are high, supply patchy. Ground gained is not in proportion to the price paid. On the credit side, they have the great advantage of being able to rest troops in reserve. This must see them through.

THE PLAN

AMERICAN - No attacks in the west. The USN Coastal Detachment will keep probing in the east. The 5th Marines must hold on in the west.

JAPANESE - Continue attacks at Tenaru. One attack in the west with the Construction Brigade. Something must give way soon.

THE RESULTS - The USN Coastal Detachment battalion holding Tenaru routs and the Japanese occupy the town for the second time. Not for long; in the afternnon the Japanese are driven out of Tenaru again. Casualty levels still favour the Americans. A
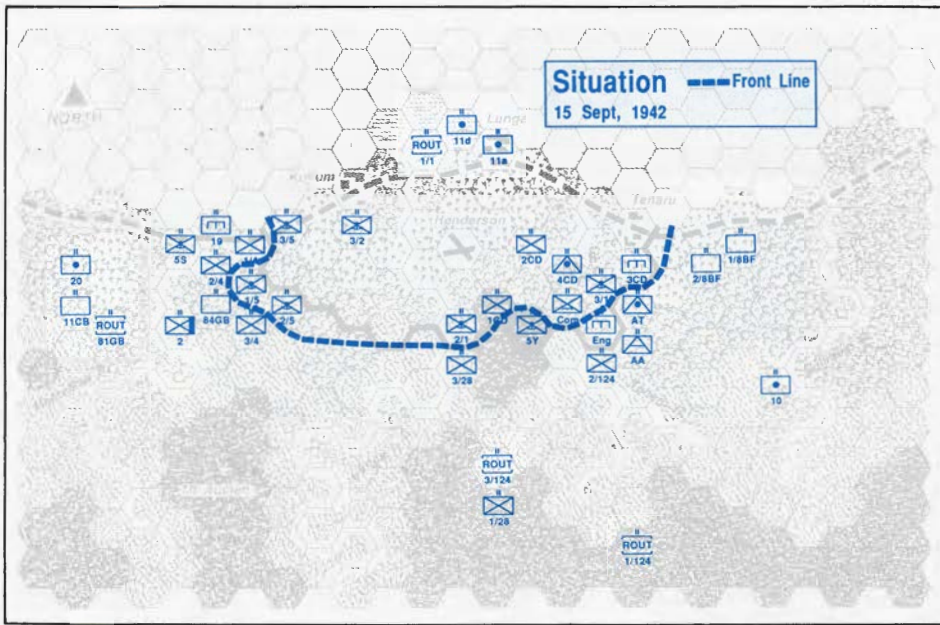
Fig 2. The Marines have failed to reach the Matanikau River in the west and are under pressure from the Bloody Ridge position. Tenaru has just been recaptured from the Japanese and seems to be secure for the moment. The Japanese 28th and 124th Regiments are just about burnt out. The newly arrived 4th Regiment has just gone into action to keep the pressure on.

resourceful Japanese midshipman finds the missing map case and the battleship support finally arrives. The 1st Marines takes heavy casualties from 14" bricks.

DAY 5

THE SITUATION

Allied casualty levels are becoming serious, almost all from minor combat. Japanese casualties are worse than serious, only the elite nature of many of their units keeping them at their posts. On the east flank two regiments have poor supply, one has fair. Average casualties are 30% - 40%. The situation is not as bad in the west. The Americans appear to be in better shape but they have nowhere to go if they strike trouble.

THE PLANS

AMERICAN - No attacks whatsoever. Grim defense all round. Strong air support will help. The composite battalion is reassigned to prop up the 1st Marines.

JAPANESE - Prepared assaults will be mounted on both flanks. No air support, of course. [This sounds like a note of frustration creeping in. Ed.]

THE RESULTS - The Japanese make total of seven attacks over course of the day; all but one result in Japanese casualties. No American casualties. Still, intense pressure causes three American battalions to fall back. The Japanese advance in west. Banzai tactics appear to bear fruit. Saki party, however, prevents naval support. A Japanese router infiltrates behind the lines and recovers near Henderson Field which could be annoying for the Americans.

HALF-TIME
(Comments from the locker room)

General Power - The American situation is disorganised. Problems on the first turn led to the destruction of the 5th Marine artillery and the subsequent failure to reach the Matanikau. There is now no room to manoeuver. Divisional assets had to be switched to the west, weakening the middle. Our attempt to move an asset into Tenaru and join it to the 1st Marines also failed. As the Japanese attack has now concentrated on either flank, we will try to put the 1st Marines into reserve. The 5th Marines will

become more aggressive to regain the lost ground in the west.

General Taubman - Things are going poorly. The only successful attack has been at night; all other gains have been through minor combat. The Americans have had good weather and maximum air support throughout, while the IJN have been as reliable as a weather forecast. However, the troops are in reasonable condition, with only one battalion KIA. The troops in the west being in better shape than those in the east. I was surprised by the offensive power of the Americans early in the battle. They have also proved more durable than expected.

DAY 6

THE SITUATION

The Americans are hanging on in the face of continued Japanese pressure. It is still not certain who will crumble first.

THE PLAN

AMERICAN - Attacks will be made where the opportunity presents itself. Usually probes but if the enemy is suspected of being particularly weak, then assault or exploit orders will be given.

JAPANESE - Continual pressure will be maintained through the use of prepared assaults on both flanks.

THE RESULTS - All attacks are either stand-offs or result in Japanese casualties. However, the USN Coastal Detachment are strung out and the Engineer unit holding Tenaru virtually unsupported. With 50% losses it routs and Tenaru falls again. Deck scrubbing on the battleships takes longer than expected and no naval support arrives.

DAY 7

THE SITUATION

Today the 7th (Marine) cavalry turns up, including the only tank battalion. Despite heroic efforts and much sacrifice, the Japanese have been unable to advance past the see-sawing town of Tenaru. They will be unable to contest the arrival of the 7th Marines. This formation, untouched, should be able to sweep aside its battered opposition in any direction it chooses to go.

Unfortunately for the Americans, they have one good unit and two flanks.

THE PLAN

AMERICAN - The 7th Marines will be swung towards Tenaru to retake it once and for all. The 1st and 5th Marines will attack when and where appropriate.

JAPANESE - Attacks again on both fronts.

THE RESULTS - Taking a leaf from the Marine's handbook, General Taubman politely enquired of his troops whether they wanted to live forever. With an emphatic negative still echoing in the air they poured forth from their positions to attack again. Taking 2 light, 4 heavy and one KIA result they gave 2 light and 1 heavy in return. An admirable result under the circumstances but not enough. The 7th Marines pressed on to take Tenaru though the 5th Marines in the west were pushed back but not broken. At this critical juncture the IJN found the map, found the island and launched its mighty salvoes. Fourteen inch shells thundered towards the 5th Marine trenches. Towards, but not onto. They missed, and the 4th Infantry took light casualties for their pains.

DAY 8

THE SITUATION

(See fig 2.) The 7th Marines is well and truly ashore and crushing its opposition at Tenaru. It will be very hard to stop. The Japanese are still 2-3 hexes from Henderson Field in the west but it is hard to see them getting closer. This won't stop them trying.

THE PLAN

AMERICAN - The 7th Marines will push on to the Nalimbui River killing anything that gets in its way. The USN Coastal Detachment can be put into reserve. The 1st and 5th Marines can attack with air support.

JAPANESE - Desperate defence is called for in the east. The forces in the west must continue to advance on Henderson Field before the 7th Marines return.

THE RESULTS - Japanese resistance in the east crumbles. The remaining battalion of the 8th Base Force is KIA'd by the 7th Marines. Japanese attacks in the west yield no result except Japanese casualties. Meanwhile the 7th Marines have pushed all the
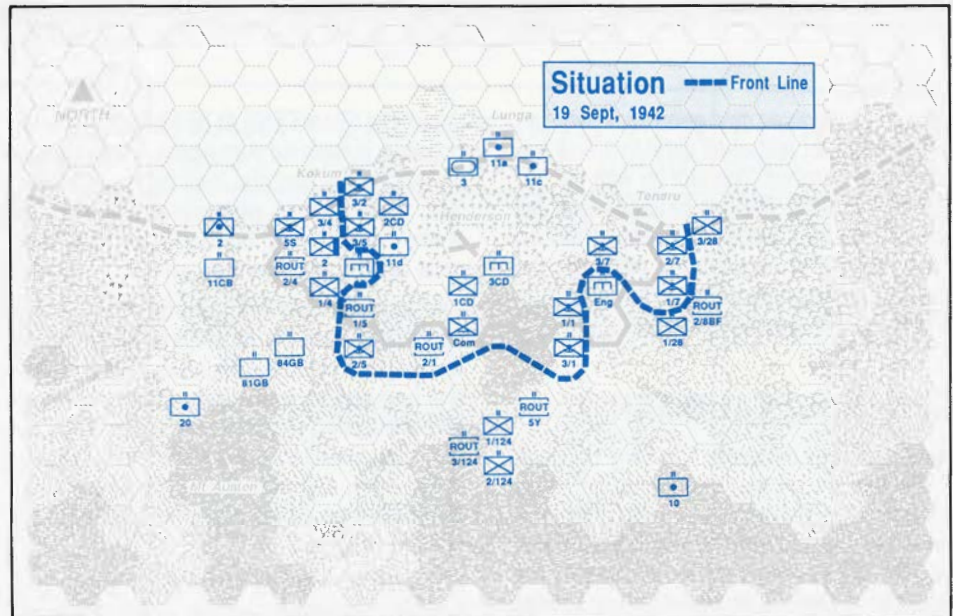
Fig 3. High tide mark for the Japanese. Within sight of Henderson Field, the newly arrived 7th Marines halt the Japanese advance. Exhausted and unsupplied, the surviving Japanese are routed away. Simultaneously, in the east, the Japanese are expelled for the last time from the village of Tenaru. American artillery and ground support, combined with the poor resupply capabilities of the Japanese headquarters, have been the decisive factors in the 1st Marine Division's victory.

way to the Nalimbui River then thundered back in the night to switch flanks. Tonight's *battleship express* was cancelled due to fogged rangefinders. The Garrison Brigade took medium casualties for their faith in IJN timetables.

DAY 9

THE SITUATION

The situation is bleak for the Japanese. Casualties in all units are too high to permit further resistance. Supply is poor. [A certain sign that they are doomed. *Ed.*]

American casualties are also high but they are in relatively better shape. They have withstood the worst the Japanese can throw at them.

THE PLAN

AMERICAN - On to the Matanikau!

JAPANESE - Defend to the death!

THE RESULTS - The Americans sweep all before them, racking up four KIA's in the course of a day's shooting, dangerously close

to the game law limit! The Japanese can do nothing about it. The 7th Marines and the USN Coastal Detachment are on the Matanikau but are yet to take it. The IJN's thoughts turn suddenly to deck tennis.

THE FINAL DAY

THE END

It's all over bar the banzaiing. There will be some scattered slaughter but the Japanese are in no shape to resist. Apart from the 7th Marines, the Americans aren't in that good a condition either. The game ends with the Americans taking the Matanikau hex though just failing to reach Mt Austen. The Nalimbui is retaken by Japanese stragglers. **(See fig 3.)**

General Power has won by 529 to 276 points, a convincing margin. The protagonist's thoughts on the game are reproduced below.

GENERAL POWER

The US must be very careful early in the game. Air points allocated to defense can be

critical. Even given my good luck with air power, I did not feel at all confident until the 7th marines arrived. The foul up with the 5th Marines and the Ranger battalion that fell into the swamp placed a great strain on things early and negated my plans for the first part of the game. Overall, however, it is hard to see the Japanese winning.

GENERAL TAUBMAN

I was decisively defeated. The early US push in the west meant that I could not get close enough to Henderson Field until the reinforcements arrived, by which time it was too late. My eastern flank did not get it's act together in time to squeeze the Americans back and stop the 7th Marines from landing. Even my best attacks, by my best units with the modicum of air support I get, usually inflicted light damage or none at all. My naval support was effective only once. General Power's use of his abundant air support was very good.

I feel that unless the Japanese can seriously threaten Henderson Field from two out of three directions simultaneously, they have no chance of winning.

IN SUMMARY

It is fair to say that it is very hard to win the game as the Japanese player, if the Americans are at all well played. The American player has a wealth of support points that can be used equally for defense or attack with devastating results.

[As an aside, both Roger and I have always won as the Japanese; except, of course, when playing each other. *Ed.*]

A less aggressive Japanese strategy would seek merely to place maximum pressure on the American defenses and to win by minor combat. The Japanese have a lot of elite units, especially as divisional assets than can be switched in and out of combat as necessary. Since the Japanese will also take losses from minor combat Japanese units should be rested in reserve wherever possible.

With proper rotation of units, the Japanese should be able to keep up constant pressure and hope to produce some routing Americans at embarassing times. This will also reduce the succession of casualties from repulsed attacks on too well supported Americans.

Japanese attacks should be restricted where possible to isolated Americans, ideally when the weather is bad and their planes can't fly. The night attacks with naval support are always worth trying, but don't use your best units to do it, and don't rely on it.

The counter to this approach is more aggression from the Americans. They should always push out to the Matanikau River on the first turn and try to kill as many of the weak and unsupplied Japanese there as quickly as they can. Resistance will stiffen fairly quickly in the west, and after that it is just a matter of hanging on as far away from Henderson Field as possible.

It is also sometimes possible to attach the Raider battalion to the USN Coastal Detachment as it moves up on Tenaru. Then, if the Raiders end up in the right spot, ideally Tenaru itself, they can be attached to the 1st Marines making a continual defense line and freeing the USN Coastal Detachment to be put into reserve. This presupposes that the Americans have made the necessary room for manoeuver by pushing forward in the west.

If the Japanese don't oblige by continually attacking, the large American artillery and air resources should be employed to hand out some hidings. The Japanese must be slowed down, and if they won't do it themselves, you must do it for them.

The major lessons which emerge from this battle are the importance of preserving your supply levels, resting tired or exhausted troops, balancing your support point allocation between attack and defence and the proper use of your divisional assets.

Poorly supplied troops are unlikely to do well in battle and suffer disproportionate losses from every circumstance. Exhausted troops are vulnerable to minor combat and perform badly in an attack role. You must allocate support points to defending units. Just a little artillery support can mess up an enemy attack. Switching divisional assets at the right time can make a decisive difference. Just remember that even though they draw supply from their regiment, they still accumulate fatigue and must be rested when tired or exhausted. ◆

The End Game and Final Status screens for *The Big Match*. Note the fragile status of the 1st and 5th Marines. The battle was closer than the victory point margin would suggest.

TASK FORCE SOUTH

The Battle for Port Stanley
11th - 16th June, 1982

A SCENARIO FOR
BATTLEFRONT

By Malcolm Power

In early 1982, the announcement of the imminent withdrawal of the Royal Navy's ice patrol ship HMS Endurance and various other signs of apparent inattention, prompted the Military Junta in Buenos Aires to suppose that a grab for the Falkland Islands could succeed without more than token resistance.

*Even as the British Task Force for **Operation Corporate** sailed steadily southward most believed that, either through the 'shuttle diplomacy' of the U.S. Secretary of State Haig or pressure from U.N. countries, one side or the other would back down.*

They were wrong!

THE SITUATION

The Falklands are a group of rocky, barren islands in the southwest corner of the Atlantic Ocean. The have a population of somewhat less than 2,000, half of whom live in the capital of Stanley. The remainder are scattered along the heavily convoluted coastline in more or less self-contained sheep farming communities.

The islands have never been settled by the Argentine. They did establish a minute garrison there in 1833 which was promptly, and bloodlessly, removed by Britain. Since that time a population of entirely British stock has slowly increased.

Argentina's national claim to the islands is based on geographic proximity and an ancient Papal Declaration in 1493 which ceded everything in that region to Spain. Even in its time, this pronouncement failed to impress, or have much effect on, the rest of the world.

The British claim rests on unbroken occupation, administration and national settlement since 1833.

For the Argentine, however, possession of the Malvinas (Falklands) has always been an emotive issue. Schoolchildren are actually taught that they have the right of possession by Holy Writ. In a country where the Catholic Church is probably the single most powerful institution, such an argument is more correctly described as indoctrination.

The Islanders themselves, being sensible people, were understandably reluctant to exchange the stability of the British administration for the unpredictable 'benevolence' of a suspect military dictatorship. Revelations made subsequent to the recent fall of the Junta have confirmed their misgivings. The Junta's horrific record of kidnapping, torture and murder are now publicized and documented.

In the months leading up to the invasion, the economic condition of the Argentine was grim. Spiralling inflation fueled the ever present political dissatisfaction. For the Junta, the kudos which would accompany the surprise capture of a long-prized possession must have appeared as a very tempting distraction to their countrymen's woes.

The lead elements of the Argentine invasion force, mostly marine commandos, came ashore
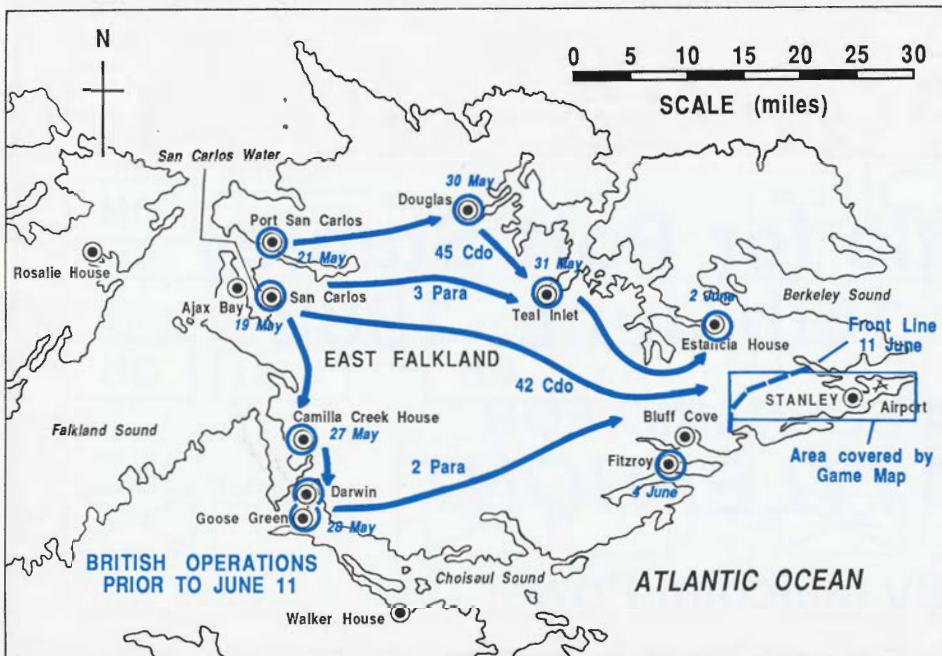
This map of East Falkland shows the major British movements from the landing at San Carlos up until the start-off point for the final drive on Stanley.

in the early hours of April 2nd. The 67-man Royal Marine garrison put up a spirited, though hopeless, fight for a few hours before surrendering on the orders of the Islands' Governor, Mr Rex Hunt.

On the same day, a detachment of Argentine marines took possession of the tiny South Georgia outpost although not without sustaining some embarassingly disproportionate casualties from the Royal Marine defenders.

* * * * *

Public feeling in England was spontaneous and almost unanimous. Prime Minister Thatcher's resolve to expel the interlopers received unqualified support from the nation, their passions inflamed not least by the foolish publication of Argentine photographs displaying the captured Royal Marines' misfortunes.

Less than three days after the Argentines had raised their flag over Government House, the advance elements of the expeditionary Task Force were on their way to recover the first British possession lost by force of arms since the Second World War.

A certain sense of unreality surrounded the initial days of the 'not quite war'. Britain declared a 200 mile Total Exclusion Zone (TEZ) around the Falklands and announced her intention of sinking anything found within it.

The clamour raised by the indignant, if not effective, diplomatic posturings from the protagonists, coupled with some not so subtle American mediation, did little other than hide the fact that British warships were getting closer.

On April 25th, the island of South Georgia was recaptured by elements of the 22 SAS Regiment and 42 Commando, Royal Marines. The Argentine submarine ANA *Santa Fe* was caught by Royal Navy helicopters in shallow water nearby and forced to beach at the little anchorage of Grytviken. There were some casualties; but the real fighting was yet to come.

American attempts to settle the confrontation were abandoned on the 29th and on the following day the US Government announced unqualified support for the British cause.

On May 2nd, two conventional torpedoes of World War II vintage fired from the British nuclear attack submarine HMS *Conqueror* sank the Argentine cruiser ANA *General Belgrano* some 36 miles outside the limit of the Total Exlusion Zone. Somewhat more than 300 of her crew were killed. Public opinion turned against England for what appeared to be an act of unrestricted warfare. That the bulk of the Argentine Navy was then at sea en route for the Falklands was not made public knowledge until October. Whether because of the loss of the old cruiser, or for other reasons, the surviving warships retired to

their mainland bases and were not heard from again in the course of the campaign.

[Whatever, it was a miserable end for a fine old ship. Commissioned into the United States Navy in 1938 as USS *Phoenix* (CL 46), she survived the attack on Pearl Harbour, took part in the invasions of Hollandia, Leyte and Mindoro before seeing out the end of the war in support of operations in Borneo. She was sold to the Argentine in 1951 and was renamed *General Belgrano* in 1956. *Ed.*]

Two days later, the Argentine struck back. While on station as a radar picket to the west of Stanley, the Type 42 destroyer HMS *Sheffield*, took aboard a single air-launched AM.39 Exocet missile which, though it failed to explode, started serious fires resulting in her eventual abandonment. The tide of public opinion turned again.

The extent of the TEZ was increased to include just about all of the South Atlantic except for a 12 mile coastal strip.

A direct assault on Stanley was ruled out as too dangerous. The task force had just 22 Sea Harriers for protection; too few for Admiral Woodward to attempt a contested invasion. Enemy intelligence had correctly guessed as much and the Commander of the Argentine garrison, Brigadier-General Mario Menendez, had deployed accordingly. Defensive positions were dug around Stanley and self contained garrisons were set up at key landing sites. The remainder of the Argentine force formed a powerful reserve, ready to reinforce a threatened point.

The relatively sheltered San Carlos Water was chosen as the initial invasion site. (See accompanying map.) Between the 19th and 23rd of May, the troops, equipment and stores of 3 Cdo Bde were landed. The Argentine Air Force put up spirited resistance, sinking three British warships, the requisitioned *Atlantic Conveyor* and damaging several others.

The Argentine Army did very little; a fortunate happenstance for the British force as this was the time they were at their most vulnerable. Morale-sapping raids by SBS and SAS teams had become a regular feature of life for the cold and disillusioned troops under Menendez' command.

On May 26th, the British troops were ready to move out. 45 Cdo and 3 Para moved on
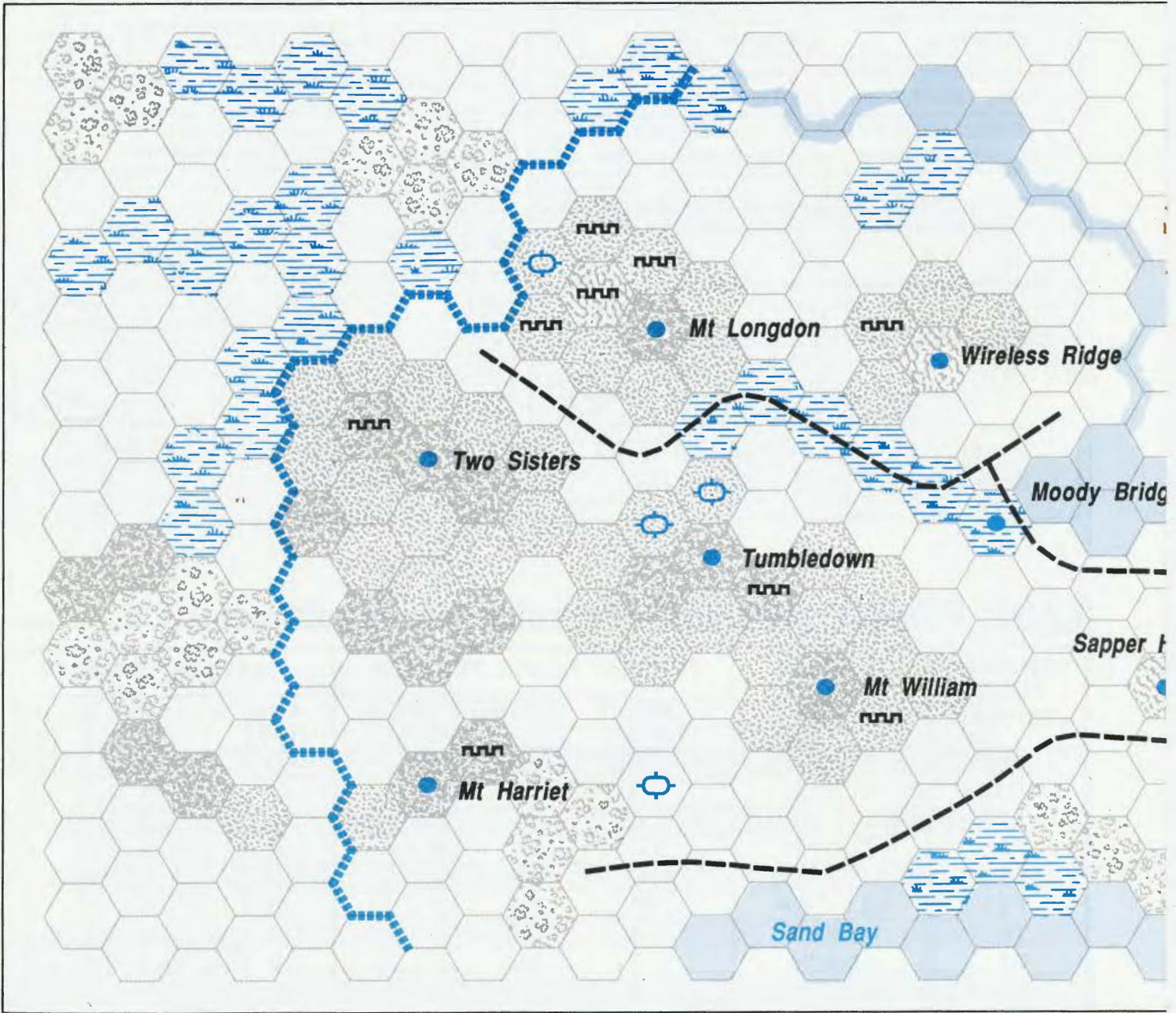
TASK FORCE SOUTH - Briefing

	AXIS		ALLIED	
	SIDE [16]		SIDE [16]	
	ARGENTINA		GREAT BRITAIN	
	CORPS [16]		CORPS [16]	
	JOINT FORCE		T/F CORPORATE	
	COMMANDER [16]		COMMANDER [16]	
	Gen Bda Menendez		Maj-Gen Moore, RN	

DAY	NIGHT	SUPPORT	DAY	NIGHT
5	2	QUANTITY 0-99	15	45
0	0	RELIABILITY (0-3)	1	3
3	4	RATING (0-15)	10	15

AIR SUPERIORITY (0-7)

STATUS = 6
RELIABILITY = 6

STRONG ALLIED
DEPENDABLE

SCENARIO [16]
TASK FORCE SOUTH

BRIEFING [26]
The Final Attack on the
Port Stanley Area
11th to 16th June, 1982

START DATA

(1-31)	DATE = 11	
(1-12)	MONTH = 6	11th JUN 1962
(0-63)	YEAR = 62	
(1-16)	LENGTH = 6	
(0-3)	WEATHER = 2	LIGHT OVERCAST
(0-7)	FORECAST = 4	STABLE
(0-31)	MECH MIN = 1	

TASK FORCE SOUTH - Terrain Effects Chart

TERRAIN CODE (T0-T15)	TERRAIN NAME [10]	TERRAIN COSTS PER HEX		ATTACK EFFECTS		
		MECH (0-31)	NON-MECH (0-31)	ARM (0-7)	ART (0-7)	INF (0-7)
T0	WATER	0	0	0	0	0
T1(RET)	CLEAR	3	3	7	7	7
T2	SOFT GRD	6	6	5	3	5
T3	SLOPE	4	4	6	6	5
T4	-	-	-	-	-	-
T5	HILL TOP	3	3	3	6	3
T6	MARSH	4	4	3	2	5
T7	BEACH	3	3	6	6	5
T8	AIRPORT	2	2	7	7	7
T9	-	-	-	-	-	-
T10	ROCKY PEAK	7	7	1	2	2
T11	-	-	-	-	-	-
T12	-	-	-	-	-	-
T13	-	-	-	-	-	-
T14	-	-	-	-	-	-
T15	-	-	-	-	-	-
-	ROAD	1	2	N.A.	N.A.	N.A.
-	FORT	N.A.	N.A.	3	2	2
-	TOWN	N.A.	N.A.	2	1	5
-	BRIDGE	1	2	4	3	5
-	RIVER	N.A.	15	7	7	7

Mt Longdon

Wireless Ridge

Two Sisters

Moody Bridg

Tumbledown

Sapper H

Mt William

Mt Harriet

Sand Bay

WATER	CLEAR	BE/
SLOPE	HILL TOP	MA
OBJECTIVE	MINEFIELD	TO

Sparrow Cove

PORT WILLIAM

Yorke Bay

Kelly Rocks

Airport

Stanley Harbour

Christina Bay

Port Stanley

Surf Bay

Stanley

'The Neck'

Rookery Bay

ATLANTIC OCEAN

Eliza Cove

JTH - Terrain Key

.CH	ROAD		SOFT GROUND		
RSH	FORT		ROCKY PEAK		
VN	AIRPORT		RIVER		

SCENARIO
TASK FORCE SOUTH

Nationality
ARGENTINE

1st Ind: 601 — 3rd Ind: 602
2nd Ind: 10 — 4th Ind: 1

XX HQ — Division: BDA X

III HQ — 1st Regt: 1 Airbne
III HQ — 2nd Regt: 7 Rgt
III HQ — 3rd Regt: 4 Rgt
III HQ — 4th Regt: 1 Mar

1st Regt: 1st Bn 1, 2nd Bn 2, 3rd Bn SUP
2nd Regt: 1st Bn 1, 2nd Bn 2, 3rd Bn 3, 4th Bn SUP
3rd Regt: 1st Bn 1, 2nd Bn 2, 3rd Bn 3, 4th Bn SUP
4th Regt: 1st Bn 3, 2nd Bn 5, 3rd Bn SUP
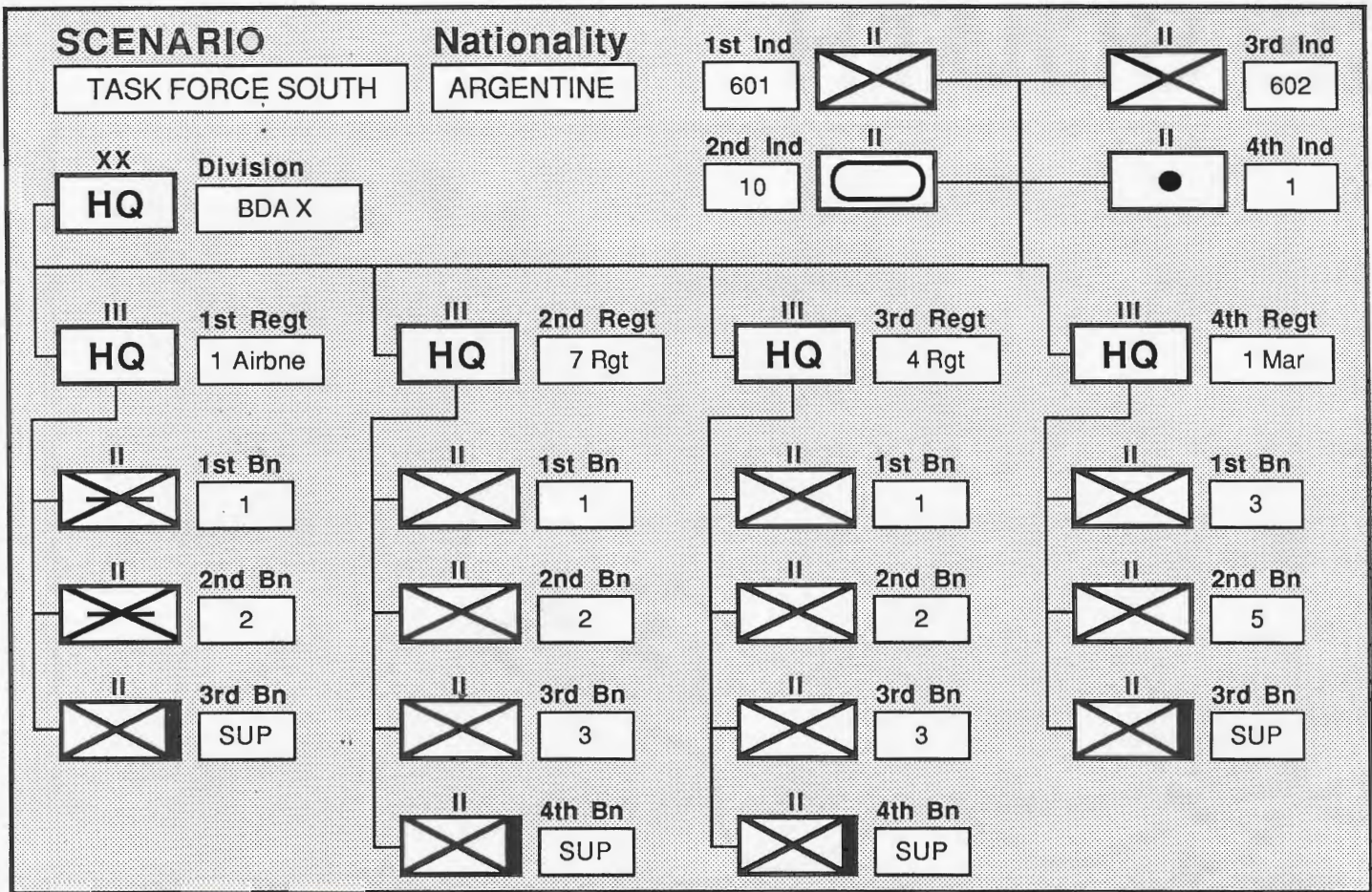
HEADQUARTERS DATA

FORMATION		XX HQ	1/RHQ	2/RHQ	3/RHQ	4/RHQ
HQ I.D.	[8]	BDA X	1 Airbne	7 Rgt	4 Rgt	1 Mar
UNIT TYPE	[8]	AD HOC	AIRBORNE	INFANTRY	INFANTRY	MARINE
HQ ADMIN	0-7	0	2	0	0	4
LEADERSHIP	0-7	0	3	1	0	5
HQ SUPPLY	0-7	3	4	3	2	4
ARRIVAL	0-63	6	N/A	N/A	N/A	N/A
LOCATION	(x,y)	23,7	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	II/III	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	1	2	SUP		1	2	3	SUP	1	2	3	SUP	3	5	SUP		601	10	602	1
LOCATION	(x,y)	15,3	14,4	15,4		8,4	9,2	10,3	10,4	5,5	6,11	7,10	6,6	11,7	13,9	12,8		9,3	24,8	4,10	21,8
CLASS	0-13	3	3	4		0	0	0	4	0	0	0	4	0	0	4		0	11	0	13
MODE	0-3	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
EQUIPM'T	0-31	18	18	20		21	21	21	20	21	21	21	20	19	19	20		15	16	15	17
MOVEMENT	0-31	8	8	6		7	7	7	5	6	6	6	5	8	8	6		8	12	8	3
STRENGTH	0-15	12	12	4		9	9	9	3	8	8	8	3	7	12	2		3	5	3	15
RATING	0-15	10	10	9		5	5	5	9	2	2	2	6	10	11	12		10	2	10	9
RANGE	0-15	0	0	1		0	0	0	1	0	0	0	1	0	0	1		0	1	0	15
ARRIVAL	0-63	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
FATIGUE	0-7	4	4	4		2	2	2	2	0	0	0	1	6	6	6		6	6	6	3
EXPERIENCE	0-7	5	5	5		2	2	2	3	1	1	1	3	5	5	5		6	2	6	3
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	4	4	3

SCENARIO TASK FORCE SOUTH **Nationality** ARGENTINE

1st Ind: 3 — II ●

2nd Ind: 601 — II △

XX HQ — **Division** BDA IX

III HQ — **1st Regt** 3 Rgt
III HQ — **2nd Regt** 6 Rgt
III HQ — **3rd Regt** 25 Rgt

1st Regt: II 1st Bn 1 | II 2nd Bn 2 | II 3rd Bn 6 | II 4th Bn SUP
2nd Regt: II 1st Bn 1 | II 2nd Bn 2 | II 3rd Bn 3 | II 4th Bn SUP
3rd Regt: II 1st Bn 1 | II 2nd Bn 2 | II 3rd Bn 3 | II 4th Bn SUP
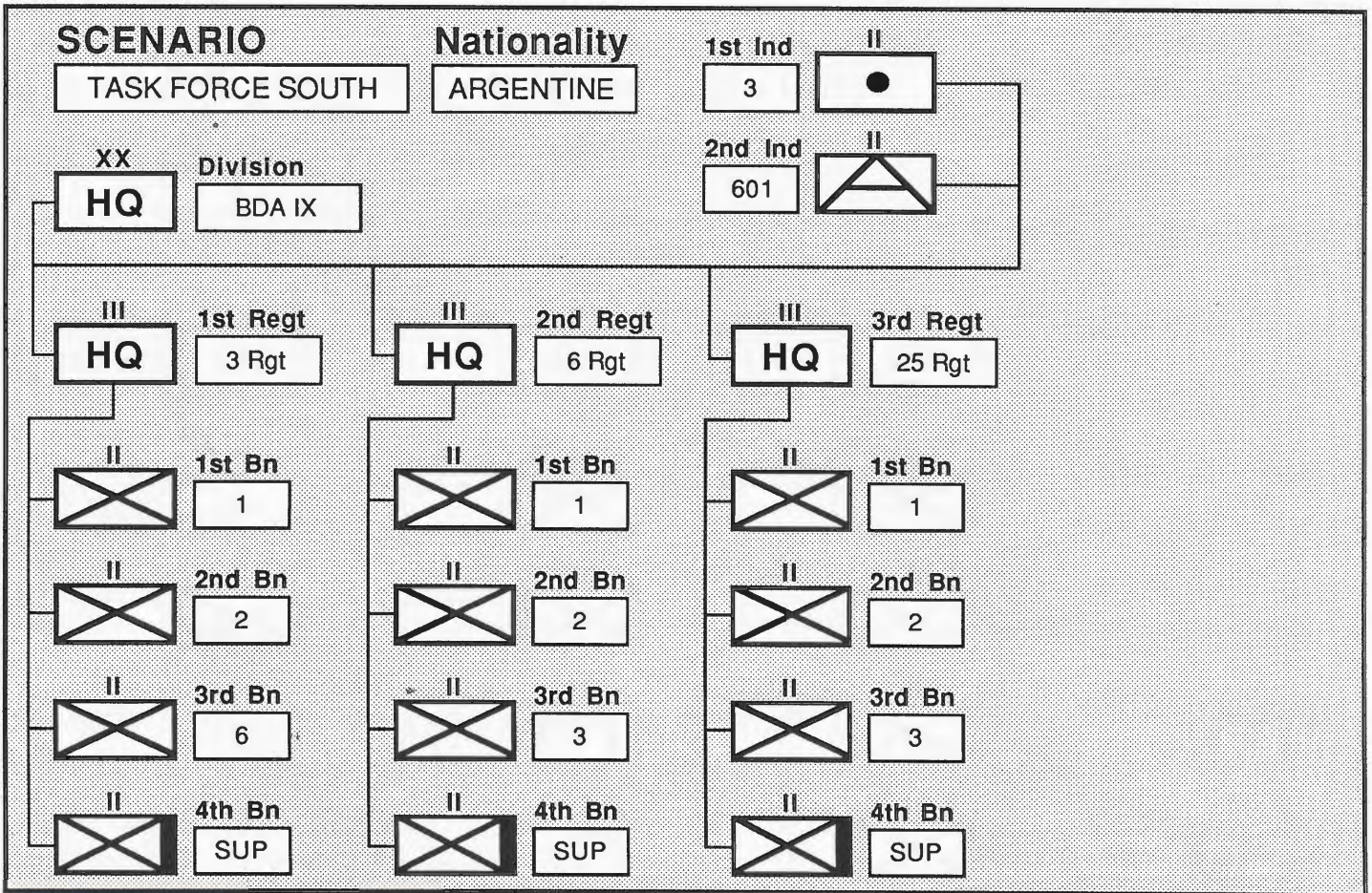
HEADQUARTERS DATA

FORMATION		XX HQ	1/RHQ	2/RHQ	3/RHQ	4/RHQ
HQ I.D.	[8]	BDA IX	3 Rgt	6 Rgt	25 Rgt	
UNIT TYPE	[8]	INFANTRY	INFANTRY	INFANTRY	INFANTRY	
HQ ADMIN	0-7	2	1	1	5	
LEADERSHIP	0-7	3	2	2	4	
HQ SUPPLY	0-7	3	4	4	6	
ARRIVAL	0-63	11	N/A	N/A	N/A	N/A
LOCATION	(x,y)	32,6	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	II/III	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	1	2	6	SUP	1	2	3	SUP	1	2	3	SUP					3	601		
LOCATION	(x,y)	31,5	31,4	33,5	32,4	29,8	30,8	29,8	30,7	29,8	30,8	29,8	30,7					30,6	32,5		
CLASS	0-13	0	0	0	4	0	0	0	4	0	0	0	4					13	8		
MODE	0-3	0	0	0	0	0	0	0	0	0	0	0	0					0	0		
EQUIPM'T	0-31	21	21	21	20	21	21	21	20	21	21	21	20					17	23		
MOVEMENT	0-31	6	6	6	5	6	6	6	5	8	8	8	6					5	4		
STRENGTH	0-15	8	8	8	3	8	8	8	3	12	12	12	4					8	6		
RATING	0-15	5	5	5	6	5	5	5	6	11	11	11	9					7	4		
RANGE	0-15	0	0	0	1	0	0	0	1	0	0	0	1					12	2		
ARRIVAL	0-63	18	18	18	18	11	11	12	12	7	7	8	8					14	15		
FATIGUE	0-7	5	5	5	5	5	5	5	5	6	6	6	6					6	5		
EXPERIENCE	0-7	2	2	2	3	2	2	2	3	4	4	4	5					4	4		
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3		

SCENARIO

SCENARIO	Nationality
TASK FORCE SOUTH	BRITISH

XX Division — HQ — 3CDO BRG

1st Ind 29C
2nd Ind BSQ
3rd Ind 2
4th Ind 3

III	1st Regt	III	2nd Regt	III	3rd Regt	III	4th Regt
HQ	3 Cdo X	HQ	5 Inf X	HQ	3 Para	HQ	22 SAS

1st Bn 42 | 1st Bn 1 | 1st Bn 3 | 1st Bn DSQ
2nd Bn 45 | 2nd Bn 2 | 2nd Bn H/W | 2nd Bn GSQ
3rd Bn 59 | 3rd Bn 1/7 | 3rd Bn 2/9
4th Bn H/W | 4th Bn H/W
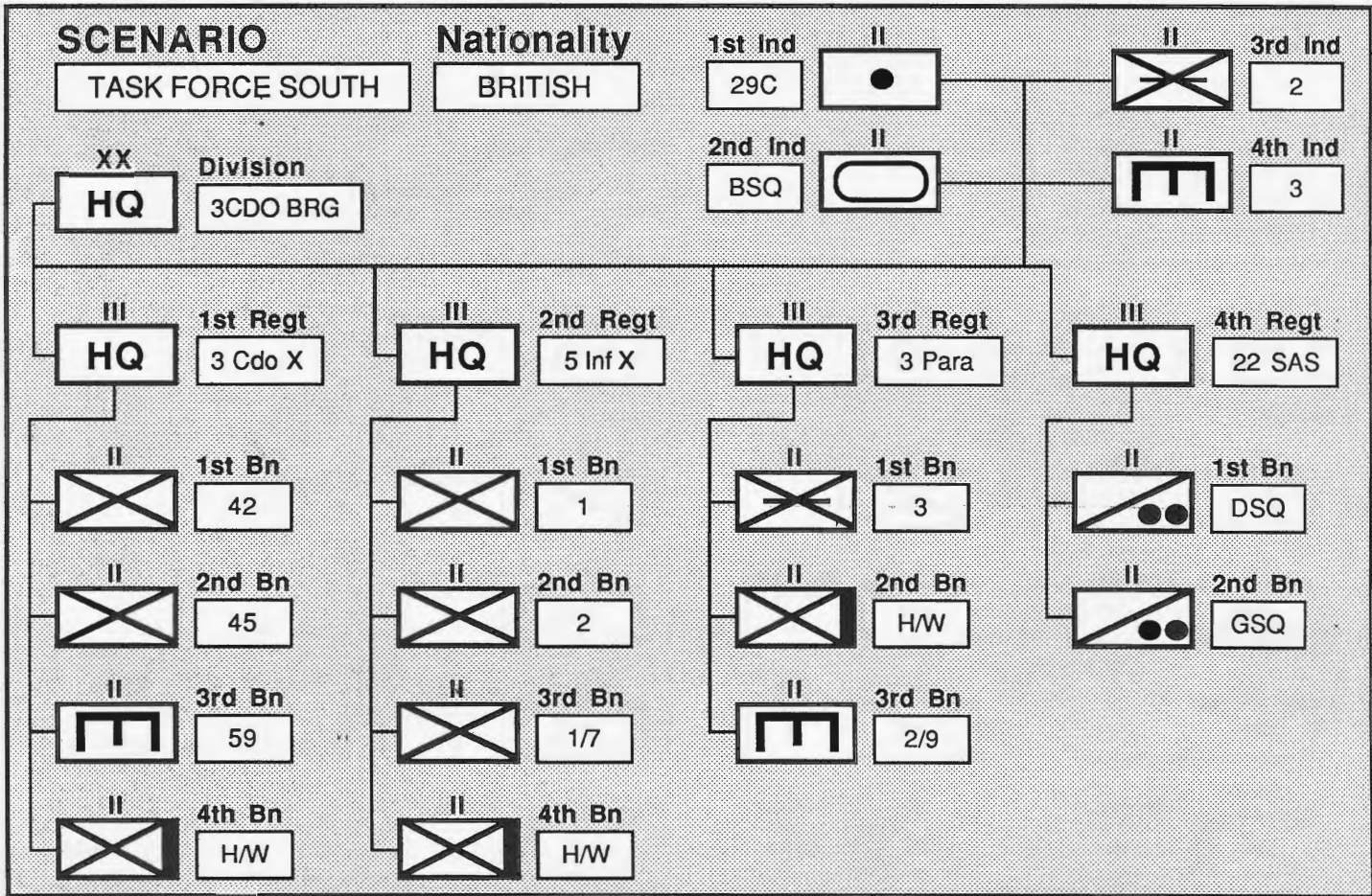
HEADQUARTERS DATA

FORMATION		XX HQ	1/RHQ	2/RHQ	3/RHQ	4/RHQ
HQ I.D.	[8]	3CDO BRG	3 Cdo X	5 Inf X	3 Para	22 SAS
UNIT TYPE	[8]	COMPOSIT	COMMANDO	GUARD	AIRBORNE	SF Recce
HQ ADMIN	0-7	7	7	6	7	7
LEADERSHIP	0-7	7	6	5	6	7
HQ SUPPLY	0-7	6	7	7	7	7
ARRIVAL	0-63	0	N/A	N/A	N/A	N/A
LOCATION	(x,y)	0,13	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	II/III	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	42	45	59	H/W	1	2	1/7	H/W	3	H/W	2/9		DSQ	GSQ			29C	BSQ	2	3
LOCATION	(x,y)	3,8	3,5	3,4	2,5	4,11	1,13	0,12	3,13	8,1	7,1	7,0		6,2	10,0			1,7	0,6	0,5	4,12
CLASS	0-13	0	0	7	4	0	0	0	4	3	4	7		6	6			13	11	3	7
MODE	0-3	0	0	0	0	0	0	0	0	0	0	0		0	0			0	0	0	0
EQUIPM'T	0-31	1	1	10	3	9	8	7	3	2	3	10		5	5			6	4	2	10
MOVEMENT	0-31	8	8	8	6	8	8	8	6	8	6	8		9	9			4	14	8	8
STRENGTH	0-15	11	11	2	9	9	9	9	8	13	9	2		5	5			9	4	13	4
RATING	0-15	13	13	10	14	13	12	13	14	14	14	10		15	15			12	7	15	10
RANGE	0-15	0	0	1	1	0	0	0	1	0	1	1		0	0			15	1	0	1
ARRIVAL	0-63	0	0	0	0	0	2	3	0	0	0	0		0	0			0	5	0	0
FATIGUE	0-7	7	7	7	7	7	7	7	7	7	7	7		7	7			7	7	7	7
EXPERIENCE	0-7	6	6	6	6	6	5	5	5	6	6	6		7	7			5	6	6	6
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	3	2	2

TASK FORCE SOUTH - Objectives

I.D. (1-24)	NAME [11]	MAP LOC [x,y]	START (0-63)	END (0-63)	POINTS PER TURN (0-30)	POINTS AT END (0-255)
1(AX)	Airport	32,5	17	23	3	20
2(AX)	'The Neck'	26,9	0	23	2	10
3(AX)	Stanley	22,8	6	23	8	110
4(AX)	Moody Br.	16,7	0	23	2	10
5(AX)	Mt Longdon	10,4	0	8	10	10
6(AX)	Mt Harriet	6,11	0	8	8	10
7(AX)	Two Sisters	6,6	0	8	5	10
8(AX)	Tumbledown	11,7	0	16	8	10
9(AX)	Wireless Rg	15,4	4	15	8	20
10(AX)	Mt William	13,9	0	16	8	30
11(AX)	Sapper Hill	19,9	5	23	8	30
12(AX)	Pt Stanley	23,7	6	23	8	140
1(AL)	'The Neck'	26,9	10	23	2	15
2(AL)	-	-	-	-	-	-
3(AL)	Mt Longdon	10,4	0	23	8	60
4(AL)	Mt Harriet	6,11	0	23	6	45
5(AL)	Two Sisters	6,6	0	23	6	40
6(AL)	Tumbledown	11,7	0	23	8	70
7(AL)	Wireless Rg	17,4	0	23	8	60
8(AL)	Mt William	13,9	0	23	8	60
9(AL)	Sapper Hill	19,9	0	23	8	80
10(AL)	Pt Stanley	23,7	0	23	15	130
11(AL)	Airport	32,5	16	23	10	40
12(AL)	Stanley	22,8	0	23	15	130

TASK FORCE SOUTH - Miscellaneous Factors

ADJACENT ENEMY HEX PENALTY (0-15)	
1st HEX = 0	4th HEX = 1
2nd HEX = 0	5th HEX = 2
3rd HEX = 0	6th HEX = 3

VICTORY POINTS PER STRENGTH POINT LOST (0-15)		
	MECH	NON MECH
AXIS	2	0
ALLIED	12	0

MAP SIZE	
ACROSS (0-2)	2
DOWN (0-3)	1

TFS - Equipmt.

0	
1	COMMANDO
2	AIRBORNE
3	MILAN
4	SCIMITAR
5	SAS SQN
6	105mmHOW
7	GURKHAS
8	SCOTS GD
9	WELSH GD
10	ENGINEER.
11	
12	
13	
14	
15	CIA CDO
16	PANHARDS
17	105/150
18	AIRBORNE
19	MARINE
20	.50 HMG
21	MILITIA
22	MOTORIZED
23	35mm AA
24	
25	
26	
27	
28	
29	
30	
31	

Stanley by way of Douglas and Teal Inlet respectively; on foot! Lost with the *Atlantic Conveyor* were 11 of Brigadier Julian Thompson's helicopters.

2 Para, together with elements of 42 Cdo, moved south to clean up the supposedly weak Argentine garrison at Goose Green. They reached the Camilla Creek House on the 27th and prepared for a night assault. The movement had been spotted in time for the Argentine to reinforce their position with a further 1,000 troops.

There was a bloody battle that night in which 2 Para's CO, Lt-Col. Jones, was killed in action while leading his men against a particularly nasty machine gun position. With the deadly support of three 105mm tubes from 8 Bty, 29 Cdo Regt. RA, Darwin was captured on the morning of the 28th and Goose Green airstrip that afternoon. The township surrendered next morning.

A little over 1,000 prisoners were collected. To the amazement of the British troops, they discovered that less than one in four of the garrison's rostered officers were, in fact, present with their men! [No doubt the rest were having a good time in the Officer's Club. *Ed.*]

On May 30th, the 'yomping' 45 Cdo and 3 Para reached Douglas and Teal Inlet. Elements of 5 Inf. Bde debarked at San Carlos. Brigadier-General Jeremy Moore took command of all *Corporate* forces. The loss of the precious helicopters aboard *Atlantic Conveyor* prompted Moore to risk landing parts of 5 Inf. Bde at Fitzroy and thereby have them available for the impending attack on Stanley, now the last bastion of the Argentine in the Falklands.

Argentine air strikes caught the off-loading transports. The logistic landing ship *Sir Galahad* was hit and in the resulting fires and explosions 63 men were killed, principally from the 1st bn, Welsh Guards.

By June 10th, Moore was in position to order the capture of Mt Longdon, Mt Harriet and Two Sisters. Attacks that night, combined with naval gunfire support from 4 RN warships, carried the objectives. Attacks on the remaining positions in front of Stanley were postponed for twenty-four hours, then on the night of the 13th, fierce fighting saw the British capture Mt William, Tumbledown and Wireless Ridge. All of the high ground overlooking Stanley was now in British hands.

In the early hours of the next morning, Argentine resistance crumbled. Troops began streaming back into Stanley. The war was over; at midnight on the 14th, the Argentine surrender became effective.

The one outstanding difference in the performance of the protagonists was leadership. Argentine officers, on the rare occasions they were actually present with their men, did not share in their tribulations. They expected, and received, superior provisions and accommodation. As a result, the troops had neither respect nor confidence in their leaders. The axiomatic consequence of such conditions is poor battlefield performance.

THE SCENARIO

The *Task Force South* scenario recreates the final days of the battle for Port Stanley. The ground scale is half a mile per hex and unit sizes are battalion or company.

The only real problems encountered in fitting this situation into the *Battlefront* system are in regard to night combat and naval support. Efficient, battalion level night combat is much more a feature of the modern battlefield than of WWII while the modern precision in fire control has meant a more effective role for naval and/or air support. Provisions have been made to account for these factors and, a little surprisingly, the battle closely follows the historical event.

The British player must attack vigorously from the first turn. Unless the Argentine troops can be routed off *en masse*, there will be too many of them for Stanley to be captured in time. Night attacks must be used wherever possible to make use of the available naval gunfire support.

The Argentine forces for the most part have little experience and woeful leadership. Still, they have some good defensive positions and useful artillery. Timely use of reserves will make a big difference.

[Note that all units in the game have been classified as mechanized as an artifice to prevent them from crossing rivers (and getting hopelessly out of bounds). *Ed.*]

CONFLICT IN VIETNAM

A Review of Sid Meier and Ed Bever's Latest Command Series Simulation

Microprose's most talented design team have chosen to examine the War in Vietnam from the viewpoint of five separate battles spanning the twenty years that this struggle lasted.

From the ignominious French defeat at Dien Bien Phu in 1954 to the penultimate defeat of the ARVN at Quang Tri in 1972, the changing nature of the conflict is presented in the time-tested **Command Series** format.

Conflict in Vietnam is the latest in the Command Series games from Microprose (others are *Decision in the Desert* and *Crusade in Europe*), and, as such, is very similar to them. In fact, virtually identical, as far as play of the game is concerned. But more of that later.

The game comes in a standard Microprose box, with a disk and a 112 page manual. The front of the disk is the boot side, and also contains the 64k game. If you are using a 128k machine, you are asked to turn the disk over after booting, and you play the 128k version (presumably involving less disk access).

THE MANUAL

The manual is professionally presented, with lots of information about the battles portrayed, maps, drawings of hardware, and designer's notes. It starts with comprehensive instructions on how to get started on each different type of computer, and then quickly tells you about the battles and variants you can play. At this point, if you are an experienced Command Series player, you can probably start playing the game, after a look at the battle briefing later on in the manual.

The Basics of Command section takes you through a list of the game controls, and the methods of entering orders (keyboard or joystick). I definitely recommend that you play with a joystick - selecting units on the screen using the arrow keys is too difficult. Brief explanations of Supply, Replacements and Victory conclude this section.

The next section is called The Art of Command in Vietnam. It contains some hints on tactics, and discusses the characteristics of all the unit types in the game, as well as Terrain, Weather, explanations of orders, Logistics and Victory (again!).

Now comes the largest section, Battle Briefings. Here are detailed Orders of Battle for each scenario and variation, historical descriptions, maps, and briefings for each side. The manual ends with the designer notes, which are worth reading for the insight into the designers' points of view on the war and on the game-as-simulation.

THE BATTLES

The game presents five battles: Dien Bien Phu, Ia Drang, Khe Sanh, The Fishhook, and Quang Tri. Each battle has from two to eight variations, usually altering forces available, deployment, or length. These battles were chosen, I think, largely because they were conventional enough to work within the game system. Fortunately, they are interesting contests, as well as instructive and historically significant.

Dien Bien Phu is an introductory scenario about the seige of the French armed camp in 1954. The French basically have no chance, since they cannot adequately supply themselves from the air. The variant supposes that the Americans intervened with massive airpower to try to break the seige.

Ia Drang is about the first major encounter the NVA had with air-mobile troops. They lay seige to Plei Me and prepared an ambush along the road which relief forces would have to use. Fortunately the local ARVN commander suspected the trap and waited for the Americans. The NVA were shocked to find themselves fighting a unit they thought

TITLE	-	**Conflict in Vietnam**
AUTHOR	-	**Meier/Bever**
PUBLISHER	-	**Microprose Software**
		120 Lakefront Drive
		Hunt Valley, MD. 21030
		U.S.A.
FORMAT	-	**Apple II family, Atari 800/XL/XE**
		Commodore 64/128, IBM PC.
PRICE	-	**$40 (US), $70 (AUST)**
REVIEWED BY	-	**Andrew Taubman**
REVIEWED ON	-	**Apple IIe**

Initial dispositions in the Quang Tri scenario. The 320B Tank Regiment is identified on the screen by the large square cursor. The ARVN forces have a hard time ahead of them in this battle.

was 100 kms away. The US/ARVN helicoptered into blocking positions and attacked the NVA, badly mauling them. This was a major defeat for the North. The variants offer the same situation, but give the US different mixes of troops to experiment with.

Khe Sanh was the opening battle of the Tet offensive. The North seiged several US bases unsuccessfully, including the massive Marine base at Khe Sanh. After ten days of seige, the North launched an ambitious offensive against towns up and down South Vietnam, mainly using the VC. This, they expected, would lead to the collapse of the government, leaving the US no choice but to withdraw. Unfortunately the offensive was a military disaster, quickly routed almost everywhere (with the notable exception of Hue). While the US high command was pleased with the damage inflicted on the enemy, and requested 200,000 more troops to finish the job, the public was shocked that an enemy supposedly on the ropes could mount such a huge attack. In political terms, Khe Sanh was a victory for the North. The variants contain alternate strategies for the communists.

The Fishhook is the invasion of Cambodia by the US/ARVN in 1970. The idea was to capture the communist HQ for South

Vietnam, COSVN. Due to a lack of strategic suprise, the invasion failed to find COSVN, although it killed a few troops and captured huge stockpiles of weapons and ammunition. The six variants have different deployments for the NVA.

Quang Tri, 1972, was the beginning of the end for South Vietnam. The NVA launched a huge conventional attack through the DMZ, with numerous tanks and 130mm artillery. Despite fierce resistance from the elite units, the ARVN broke. It took them seven months of hard fighting to regain the lost ground. The losses the NVA took allowed the South about 1 year to reorganise and rebuild their country to resist the inevitable next attack. They failed.

THE GAME

In general terms, the way a game proceeds is this: you boot the game up, enter the requested Operational Code (more on this later), choose the battle and variant you wish to play, choose the options (which side to play, play balance, etc), and then the map appears on the screen. At this point it is advisable to freeze the game, and move the cursor around the map to examine your units. Each unit (battalion) is rated for number of

men, support arms, efficiency, supply, experience, form (deployment state), and current orders. Next you should look at the objectives' values and positions. You can also see the positions of some enemy units, all of them if you are playing the NVA, but no other information about them unless you are adjacent.

Now you unfreeze the game and proceed. Time moves in half-hour hops; quickly if you are doing nothing, but more slowly when you enter orders. You do this by moving the cursor to the unit to which you wish to give orders and hitting the appropriate key for the order you are going to issue: A(ttack), D(efend), M(ove), R(eserve). If you want the unit to execute the order in a specific location (eg: attack that unit, rather than attack what you like) you then move the cursor to that location and press the fire button. The unit will try it's best to obey the order; if it is in combat, or in bad shape, it will take longer to fulfill your order than otherwise. You can order artillery and air to attack units or locations the same way. You decide where to attack and to defend, when to pull a unit back into reserve, where to commit your support. After a battle occurs you get a combat report as to what level of losses your unit took, and thus an indication of the enemy's strength. The game proceeds like this until the end, at which time the computer evaluates your performance in terms of casualties and territorial objectives, and awards you a rank accordingly.

GOOD FEATURES

Once you learn to use the game commands properly, playing is fairly easy (however, see PROBLEMS). An advantage to having several games use the same system is that having learnt to play one, you can get going straight away in any other one.

The graphics are also quite good. The map is actually made of rectangles, staggered like bricks, rather than hexes. The terrain definition is therefore good, but do not use icons to represent your units: choose the symbols instead. Some of the icons look like terrain: that mountain may be a helicopter unit! This also means the unit obscures the terrain completely; you have to hit 'T' to render invisible all the units to see what terrain a unit is in.

The authors have managed to get quite a good feel for the situation into the game. The US and ARVN have overwhelming force in

most situations, but have trouble applying it because the enemy has often left before the shells or bombs arrive. The NVA/VC have weaker, and often fewer units, but their hidden movement can shelter them while they recover or mass for an attack. It is quite difficult to get used to using units in this unconventional manner (especially for this old boardgamer), but that is a lesson to be learnt.

The computer intelligence is reasonably good. While units sometimes dither about, or gather in strange places, the machine does not move in the same way every game (unlike some surprisingly popular games available), nor does it fail to react to unusual circumstances. There is a WWII Russian front game being sold, wherein you, as the Germans, can choose not to move your units at all, then sit back and watch the Russians retreating in pre-programmed steps back to Moscow.

PROBLEMS

There are a number of features of the game system that could be improved. The most annoying one is locating units using the joystick. You have to work hard to get the cursor to end up on the unit you want.

The proliferation of US air units in some scenarios creates a problem. Sometimes many hours pass between the issuing of an order and it's fulfilment. During this time the target enemy unit is quite likely to move. This is quite reasonable; but now you want to change the target for your air unit, so that it doesn't drop it's bombs on empty jungle - but which air unit did you use for that attack? The only way to find out is to move the cursor on to each air unit in turn, and ask it for its orders by hitting the fire button or space bar. If the target area doesn't fit on the same map as the air unit, there is no way to find out where you have ordered the attack to take place.

Part of the copy protection Microprose have adopted is the compulsory entering of an 'Operational Code' before the game will start. These codes are scattered randomly throughout the rule book, and it will take you a few minutes of page-leafing to find the code requested from the 16 possibles, which are scattered over 85 pages. I fail to see that this adds any significant level of protection to the game.

As noted above, the system is identical, as far as I can see, to *Decision in the Desert*. Can two such vastly different arenas of
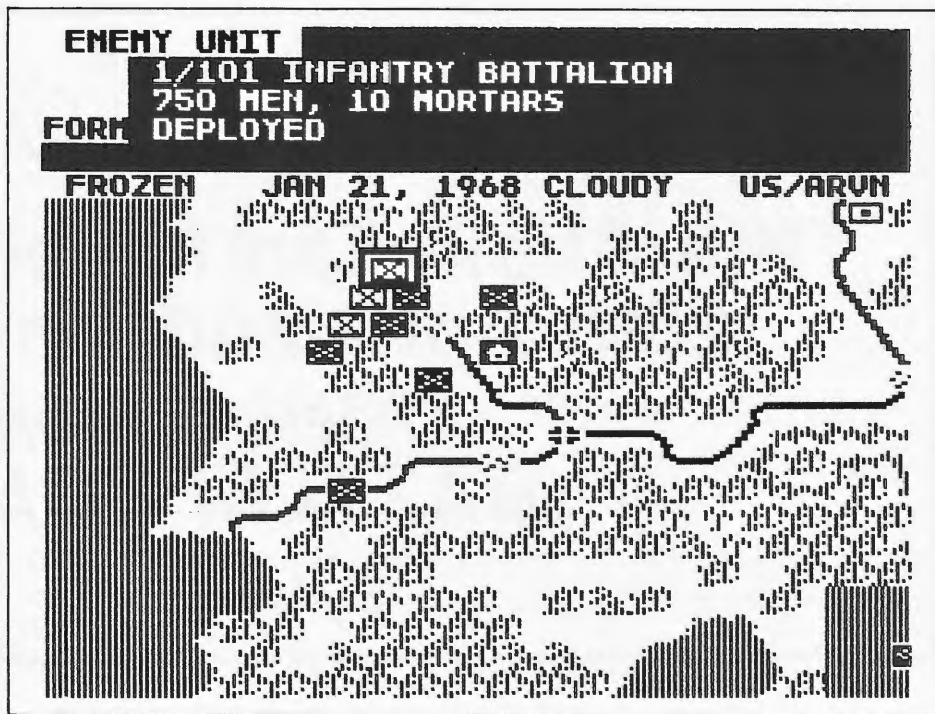
An enemy status screen from the Khe Sanh scenario.

combat really be simulated with the same rules? The authors have clearly gone to great lengths to get the Orders of Battle and terrain correct, but no customisation of the game system to the situation appears to have been done. As an example, commanding units in this game is exactly the same as in *Decision in the Desert* ; the actual experience of command was obviously very different.

Playing against another player is quite different to playing against the computer. The game is either in US or NVA mode while running, so one player gets to see all the other side's movement and combat results, and none of his own. It also means the non-viewing side gets no notification of the arrival of reinforcements. The manual has four ways of handling this, which mostly limit the occasions when players may give orders. Probably the best way is only to give orders at 3am each day, and after each attack. The final, and worst, aspect of this facet of the game system is that only one player gets an evaluation of his performance at the end - clearly a bug that should have been caught in playtesting.

Supply is handled in a very peculiar fashion. At precisely 11:30am each day, a supply phase occurs. Everything stops, and supplies are distributed from headquarters to the units (visibly, on the screen). If a line cannot be traced to the unit, it gets no supply. This means that the NVA can isolate an ARVN unit by surrounding it with two units from, say, 11am to 12noon each day, then going away for

another 23 hours. After a few days of this, the ARVN unit will die or surrender quite easily. It doesn't apply to US units, as they are usually supplied from the air. I cannot understand why supply was done in a non-real-time way in a real-time game.

The actual position the player assumes in the game is not clear. You are in charge of all the troops, no matter how many there are or what type they are. Yet, although you can be anything up to an army commander, you still move the individual battalions around like chess pieces. This is the job of the regimental commander. If you issue local orders, then the battalion commander does his own thing. In other words, the battalion is either completely autonomous, or commanded by the highest level of command - neither being a true reflection of doctrine.

CONCLUSION

Playing this game was a lot of fun, and a challenge. While the suitability of some of the game systems to the situation is in doubt and the question of perspective makes play between two humans awkward, the authors have clearly gone to some trouble to get the data correct and the feel of the war across. I can recommend this game if you are interested in the war in Vietnam. ◆

GALLIPOLI

The Australian Imperial Force
25th Apr - 2nd May, 1915

A SCENARIO FOR
BATTLEFRONT

By Ian Trout

At a little after 2am on Sunday, April 25th, 1915, three old British battleships stopped to lower their boats some 5,000 yards from what would shortly become known as Anzac Cove. Fifteen hundred Australian soldiers, from the 3rd Inf. Bde, climbed quietly into them. The battleships dropped their tows 3,000 yards from shore and a dozen noisy pinnaces took up the task of driving the boats to the beach. There was, as yet, no response from the defenders.

For the final 200 yards, the soldiers had to take to the oars and it was at this point that the enemy at last detected their presence. A volley of rifle fire rang out. The men scrambled from the boats in the early dawn light and waded ashore. A small detachment of Turks at the water's edge was promptly routed as the ANZAC troops began pushing inland.

Not that they knew, they had landed a mile too far north and would have to fight through the very worst terrain in the entire Gallipoli peninsula. The contest was foredoomed. . .

THE SITUATION

The balance of power in Europe changed radically in the 19th century. At the close of the Napoleonic Wars, the mighty Ottoman Empire held sway over an area greater than the bounds of continental Europe. By the outbreak of war in August 1914, most of it had been shorn away; and what little remained (Palestine, most of modern day Iraq and Cyprus) was in imminent danger of proclaiming autonomy.

Tripoli had been conquered by Italy, the Greeks had finally driven out their hated Muslim rulers and the Balkan States, in a series of brutal and bloody wars, achieved a more or less independent existance.

It was not until 1909 that the rot was temporarily halted. A group of youthful and idealistic politicians, collectively known as the *Young Turks*, deposed the vapid and dissolute Abdul Hamid II, more aptly remembered as Abdul the Damned, the last Turkish Sultan.

In every area of endeavour and enterprise, by all contemporary standards, Turkey was hopelessly outclassed by her European rivals. In diplomatic circles, as well as the world's budding international press, Turkey was universally ridiculed as the *Sick Man of Europe.*

The new government could not provide the magic cure needed to reverse the country's slide to oblivion. It was all they could do to hold on to what they had. The promised policies of democracy and enlightenment gave

GALLIPOLI

Terrain Key

⬡	WATER
⬡	OPEN
⬡	SLOPE
⬡	WOOD/SLOPE
⬡	RIDGE
⬡	GULLY
⬡	PEAK
⬡	ROAD
✳	OBJECTIVE
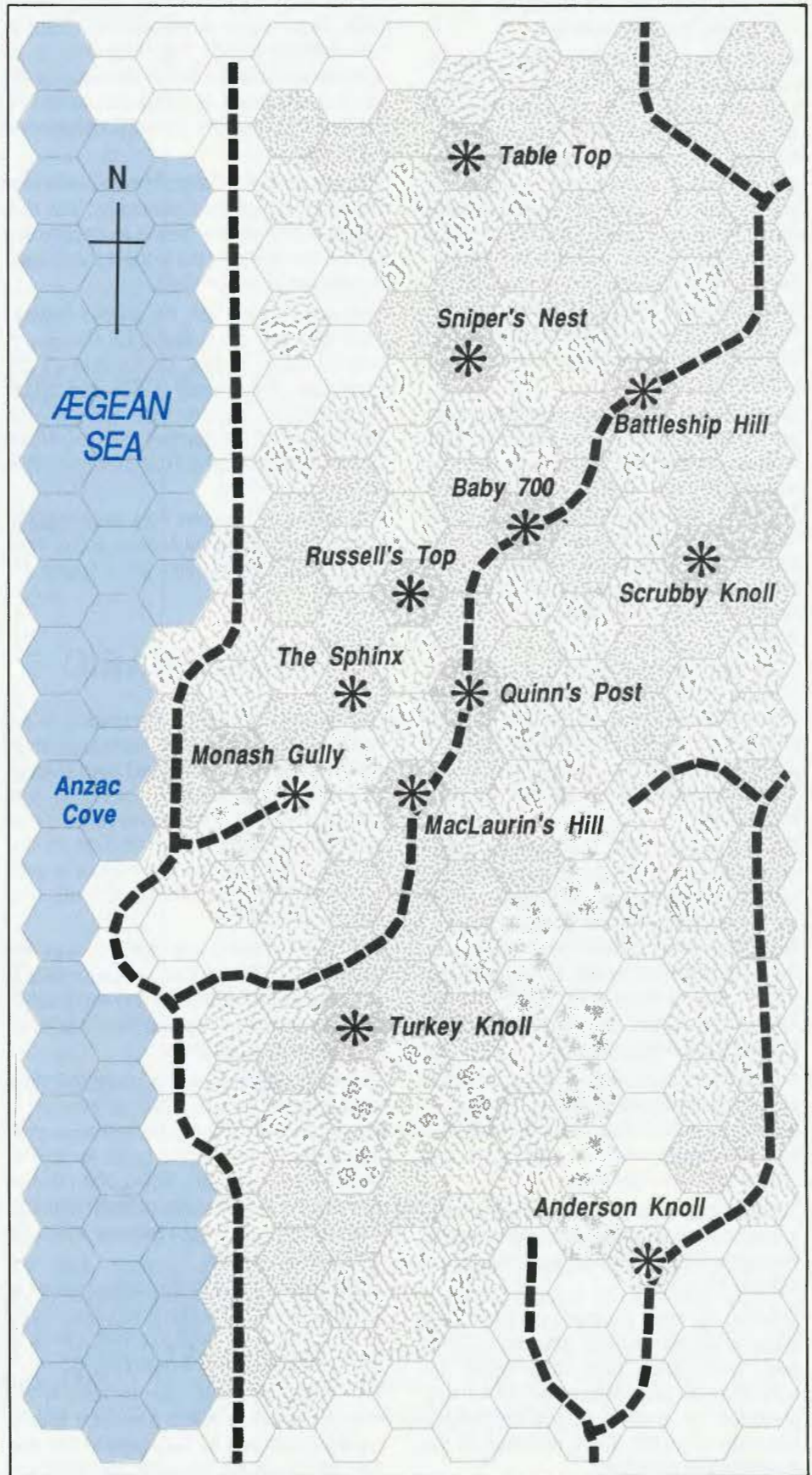
A NOTE ON MAP SCALE

To accommodate the very different unit frontages which characterized World War I armies, the ground scale on the map is 250 metres per hex.

N

ÆGEAN SEA

Anzac Cove

Table Top

Sniper's Nest

Battleship Hill

Baby 700

Russell's Top

Scrubby Knoll

The Sphinx

Quinn's Post

Monash Gully

MacLaurin's Hill

Turkey Knoll

Anderson Knoll

way to a pragmatic and dictatorial regime. The country, however, survived.

In the years immediately preceeding the outbreak of war, only Germany of the major European powers had steadfastly supported the new government. Their Military Mission had been responsible for the modernising of the Turkish munitions industry and the reorganization of what had been a basically feudal army. In choosing Field-Marshall Otto Liman von Sanders to head the Mission, Germany had provided Turkey with a steady, intelligent and dedicated soldier; a man ideally suited to revive the military prestige of the nation once feared in every realm of Christendom.

British influence in Constantinople had been waning prior to the war. The decision, however, in early August, to requisition the two battleships being built in British shipyards, was the final straw which tipped Turkey irrevocably into the German camp. Seizing the opportunity, Germany freely transferred the newly built battleship *Goeben* and cruiser *Breslau* to Turkish control.

In the first months of the war, it suited both sides to keep Turkey neutral. Germany fully expected to win, and quickly. The situation changed somewhat after the First Battle of the Marne and the trenches began to thicken from Switzerland to the North Sea. Germany needed allies.

On September 26th, the German officer commanding the Dardanelles fortifications closed this sea route to all shipping. There was some disquiet in the Turkish cabinet as this decision was made without reference to the Government. In the end, Enver Pasha and Talaat Bey, Ministers for War and the Interior respectively, had their way and the German action was sanctioned.

A month later, Admiral Souchon, commander of the *Goeben* squadron, led his little fleet on a raid into the Black Sea. Odessa, Sevastopol and Novorossik were all fired upon and several merchant ships sunk.

Turkey received a 12 hour ultimatum and, after choosing to ignore it, found herself at war with Britain, France and Russia on October 31st, 1914.

Initially, it was planned to force the Dardanelles with a naval squadron. British and French ships were to bombard the ancient fortifications which had for so long protected (or blockaded) the Black Sea. This plan ultimately failed; attended by the most macabre of bad luck.

On the very day, March 18th, 1915, that the naval assault was abandoned, the Turkish fortifications used their last round of ammunition! Had the British attempted to do so, they could have steamed unopposed into the Sea of Mamara and placed Constantinople under fire.

An invasion of the Gallipoli peninsula, on the European side of the Dardanelles, was now decided upon as the means to capture the capital, knock Turkey out of the war and open the vital sea lanes to Russia.

To accomplish this task, the Imperial General Staff selected the British 29th Division to land at Cape Helles, on the toe of the Peninsula, the French 175th and 226th Regiments to capture Kum Kale on the Asiatic side of the narrows and the Anzac Corps to land at Gaba Tepe some 50 miles north of Cape Helles.

The combined invasion fleet assembled at Lemnos, an island in the Aegean, and on April 23rd slipped anchor and set a course for Gallipoli.

THE SCENARIO

Our scenario deals with the landing of the Anzac Corps. This was the first war in which Australia and New Zealand had been involved as nations and Gallipoli was their first campaign. As such, it has always held a special place in our history and heritage. In the end the Turks beat us but not without a good fight and more than the usual amount of British cock-up!

The *Battlefront* game system was not designed with World War I engagements in mind; yet with some thought and manipulation of the data bases, they can be recreated as this scenario demonstrates.

The most salient difference characterizing a WWI division from its WWII counterpart is the absence of any supporting units other than artillery and machine guns. An infantry battalion is essentially 600-1,000 riflemen with a dozen or so machine guns to help them. The bayonet is a serious weapon which the troops expect to use.

In *Battlefront*, most of the combat power of a unit comes from the interaction of combined arms. There is no such interaction here so that the attacker finds it heavy going.

The ground scale has been reduced to 250 metres per hex to reflect the much smaller frontages adopted by battalions in this era. The terrain values are very low, reflecting

Equipment

0	
1	ANZACS
2	18 PdrQF
3	Marines
4	10 Pdr
5	Regulars
6	Militia
7	16 Pdr
8	9 Pdr

both the extremely rugged terrain of this battlefield and the more general difficulty of advancing against prepared positions without armoured support. The extensive trench systems at Gallipoli were built up subsequent to the end of this scenario.

The Anzac player must push ahead as fast as the dreadful terrain will permit. Every objective is important and the sooner each one can be secured then the more likely you are to win. You have more troops but little else in the way of advantage.
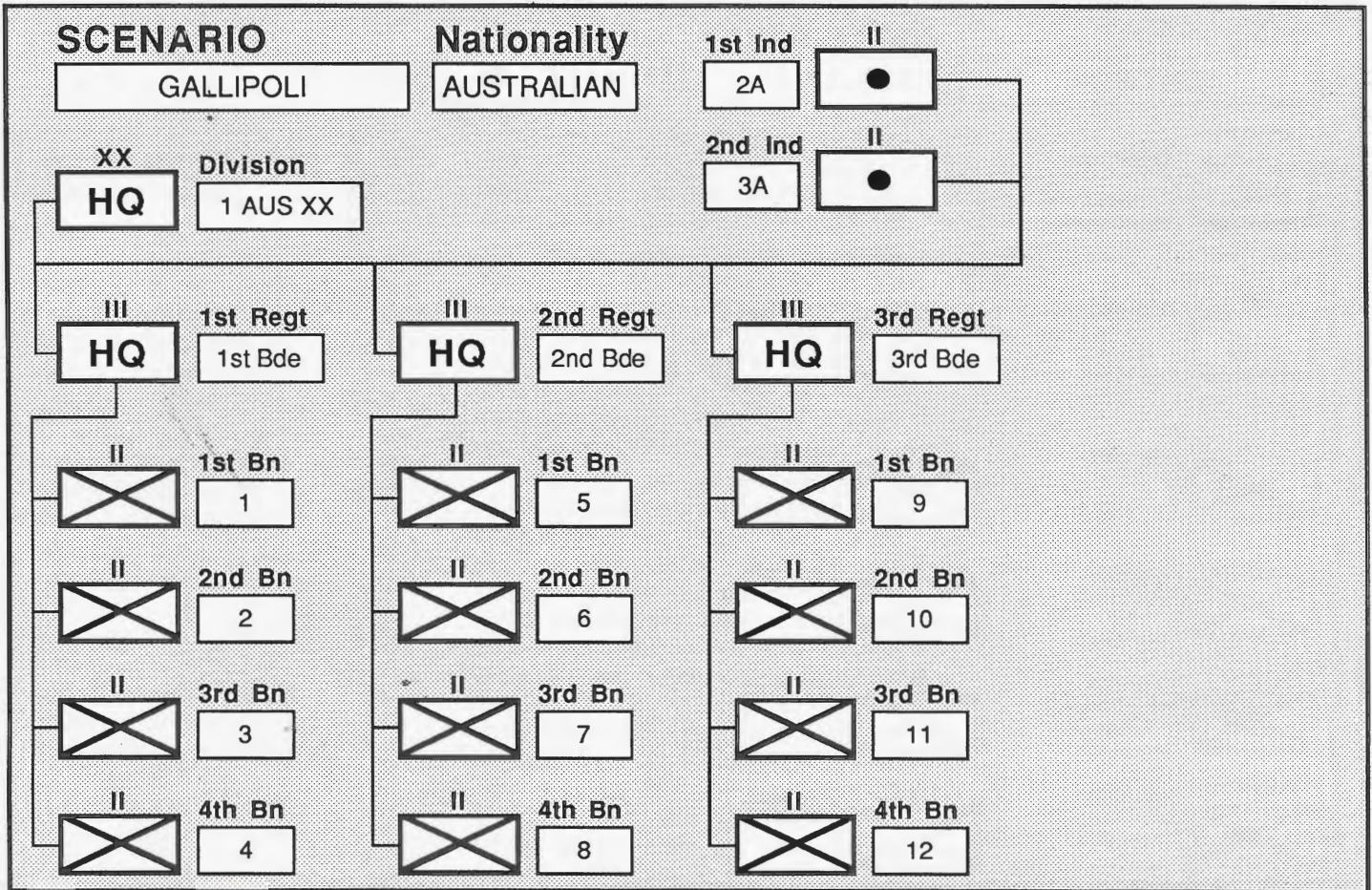
The Turkish commander has one tremendous advantage; Mustafa Kemal Pasha, better known as Kemal Ataturk, the founder of modern Turkey. His 19th Division has one excellent regiment of regulars which must be preserved at all costs as a counter to any Anzac breakout. Even the green Arab regiments in his division will do fairly well under his leadership. Your resupply facilities are also better. There is no obligation for you to attack unless it is to retake an objective. If you can hold all of the objectives west of hex-column 7, you should win.

ONE VARIATION

The Anzac Corps had planned to land south of their eventual destination where the terrain is much gentler. Change the Allied points per turn as follows: Anderson Knoll (30), Turkey Knoll (15), MacLaurin's Hill (15).

Change the Turkish points per turn as follows: Anderson Knoll (5), Turkey Knoll (10). Delete Table Top as a Turkish objective.

Relocate the arrival hexes for all Allied units to locations south of hex-row 13. ◆
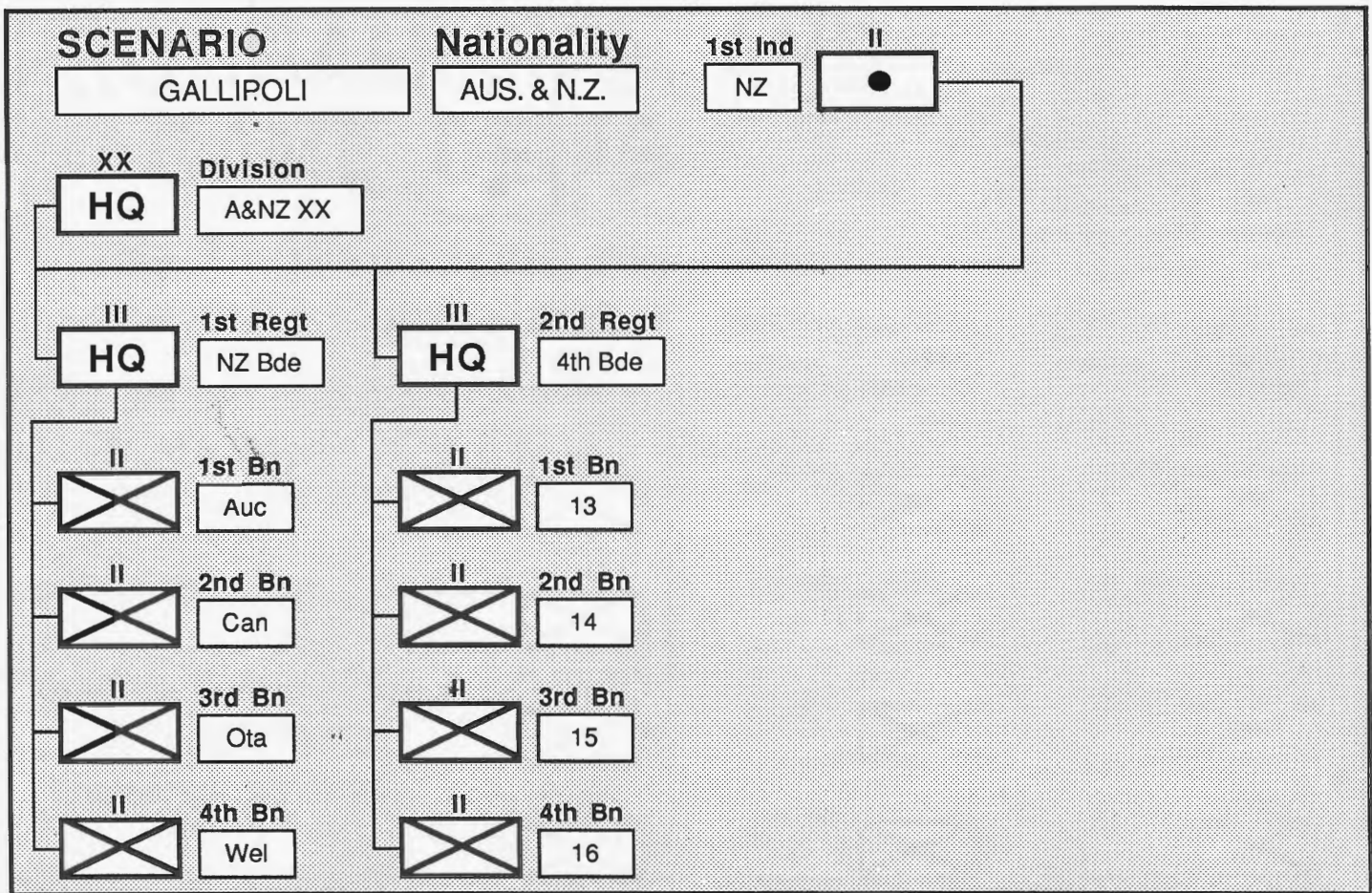
SCENARIO
GALLIPOLI

Nationality
AUSTRALIAN

1st Ind 2A — II ●

2nd Ind 3A — II ●

XX HQ — **Division** 1 AUS XX

III HQ — **1st Regt** 1st Bde
- II 1st Bn — 1
- II 2nd Bn — 2
- II 3rd Bn — 3
- II 4th Bn — 4

III HQ — **2nd Regt** 2nd Bde
- II 1st Bn — 5
- II 2nd Bn — 6
- II 3rd Bn — 7
- II 4th Bn — 8

III HQ — **3rd Regt** 3rd Bde
- II 1st Bn — 9
- II 2nd Bn — 10
- II 3rd Bn — 11
- II 4th Bn — 12

HEADQUARTERS DATA

FORMATION		XX HQ	1/RHQ	2/RHQ	3/RHQ	4/RHQ
HQ I.D.	[8]	1 AUS XX	1st Bde	2nd Bde	3rd Bde	
UNIT TYPE	[8]	INFANTRY	INFANTRY	INFANTRY	INFANTRY	
HQ ADMIN	0-7	3	4	4	4	
LEADERSHIP	0-7	5	5	4	4	
HQ SUPPLY	0-7	3	7	7	7	
ARRIVAL	0-63	9	N/A	N/A	N/A	N/A
LOCATION	(x,y)	2,8	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	II/III	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	1	2	3	4	5	6	7	8	9	10	11	12					2A	3A		
LOCATION	(x,y)	1,8	2,7	1,10	1,9	2,7	1,8	1,9	1,10	2,8	1,8	1,9	0,12					2,8	2,8		
CLASS	0-13	0	0	0	0	0	0	0	0	0	0	0	0					13	13		
MODE	0-3	3	3	3	3	3	3	3	3	3	3	3	3					3	3		
EQUIPM'T	0-31	1	1	1	1	1	1	1	1	1	1	1	1					2	2		
MOVEMENT	0-31	16	16	16	16	16	16	16	16	16	16	16	16					8	8		
STRENGTH	0-15	15	15	15	15	15	15	15	15	15	15	15	15					4	6		
RATING	0-15	6	6	6	6	6	6	6	6	6	6	6	6					7	7		
RANGE	0-15	0	0	0	0	0	0	0	0	0	0	0	0					15	15		
ARRIVAL	0-63	2	2	2	2	1	1	1	1	0	0	0	0					5	6		
FATIGUE	0-7	7	7	7	7	7	7	7	7	7	7	7	7					7	7		
EXPERIENCE	0-7	3	3	3	3	3	3	3	3	3	3	3	3					3	3		
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	2		

37

SCENARIO

SCENARIO	Nationality	1st Ind	II
GALLIPOLI	AUS. & N.Z.	NZ	●

Organization chart:

- **XX HQ** — Division: A&NZ XX
  - **III HQ** — 1st Regt: NZ Bde
    - II 1st Bn: Auc
    - II 2nd Bn: Can
    - II 3rd Bn: Ota
    - II 4th Bn: Wel
  - **III HQ** — 2nd Regt: 4th Bde
    - II 1st Bn: 13
    - II 2nd Bn: 14
    - II 3rd Bn: 15
    - II 4th Bn: 16

HEADQUARTERS DATA

FORMATION		XX HQ	1/RHQ	2/RHQ	3/RHQ	4/RHQ
HQ I.D.	[8]	A&NZ XX	NZ Bde	4th Bde		
UNIT TYPE	[8]	INFANTRY	INFANTRY	INFANTRY		
HQ ADMIN	0-7	3	3	4		
LEADERSHIP	0-7	4	5	5		
HQ SUPPLY	0-7	3	7	7		
ARRIVAL	0-63	11	N/A	N/A	N/A	N/A
LOCATION	(x,y)	2,7	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	II/III	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	Auc	Can	Ota	Wel	13	14	15	16									NZ			
LOCATION	(x,y)	2,6	2,8	2,6	2,6	1,11	0,12	1,11	1,11									1,11			
CLASS	0-13	0	0	0	0	0	0	0	0									13			
MODE	0-3	3	3	3	3	3	3	3	3									3			
EQUIPM'T	0-31	1	1	1	1	1	1	1	1									2			
MOVEMENT	0-31	16	16	16	16	16	16	16	16									8			
STRENGTH	0-15	15	15	15	15	15	15	15	15									3			
RATING	0-15	6	6	6	6	6	6	6	6									7			
RANGE	0-15	0	0	0	0	0	0	0	0									15			
ARRIVAL	0-63	2	2	5	6	2	2	5	6									7			
FATIGUE	0-7	7	7	7	7	7	7	7	7									7			
EXPERIENCE	0-7	3	3	3	3	3	3	3	3									3			
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1			
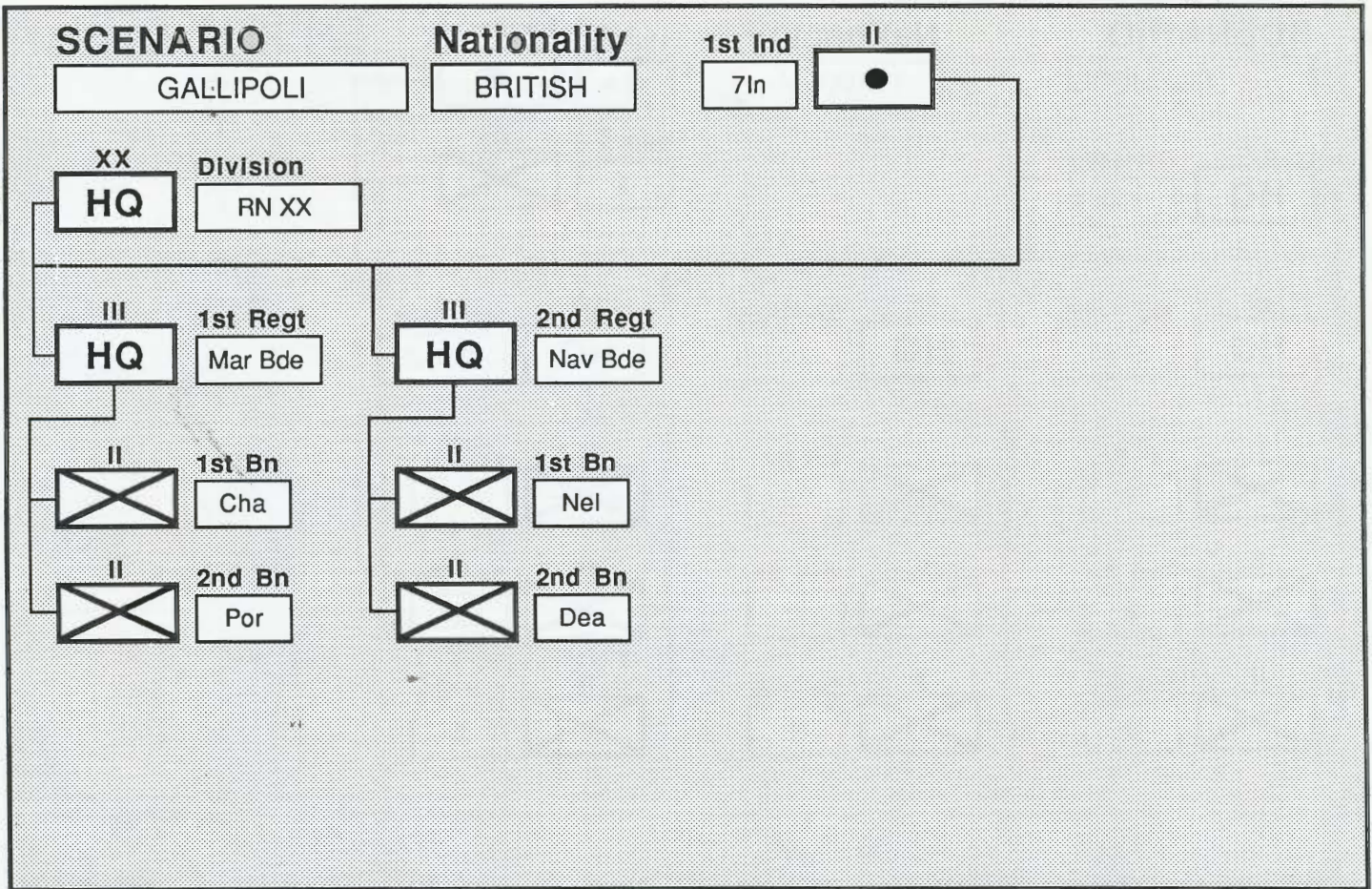
HEADQUARTERS DATA

FORMATION		XX HQ	1/RHQ	2/RHQ	3/RHQ	4/RHQ
HQ I.D.	[8]	RN XX	Mar Bde	Nav Bde		
UNIT TYPE	[8]	MARINE	MARINE	MARINE		
HQ ADMIN	0-7	3	3	3		
LEADERSHIP	0-7	2	4	3		
HQ SUPPLY	0-7	3	6	6		
ARRIVAL	0-63	15	N/A	N/A	N/A	N/A
LOCATION	(x,y)	2,8	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	II/III	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	Cha	Por			Nel	Dea											7In			
LOCATION	(x,y)	2,6	2,7			2,7	2,8											2,8			
CLASS	0-13	0	0			0	0											13			
MODE	0-3	3	3			3	3											3			
EQUIPM'T	0-31	3	3			3	3											4			
MOVEMENT	0-31	16	16			16	16											8			
STRENGTH	0-15	8	8			9	10											7			
RATING	0-15	6	6			6	6											4			
RANGE	0-15	0	0			0	0											15			
ARRIVAL	0-63	15	15			17	19											15			
FATIGUE	0-7	7	7			7	7											7			
EXPERIENCE	0-7	4	3			2	3											2			
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1			

SCENARIO
GALLIPOLI

Nationality
TURKISH

1st Ind — 19A — II ●

2nd Ind — 5 — II ⊠

XX HQ — **Division** 19th XX

III HQ — **1st Regt** 57 Inf
III HQ — **2nd Regt** 72 Arab
III HQ — **3rd Regt** 77 Arab

II ⊠ — **1st Bn** 1
II ⊠ — **2nd Bn** 2
II ⊠ — **3rd Bn** 3

II ⊠ — **1st Bn** 1
II ⊠ — **2nd Bn** 2
II ⊠ — **3rd Bn** 3

II ⊠ — **1st Bn** 1
II ⊠ — **2nd Bn** 2
II ⊠ — **3rd Bn** 3
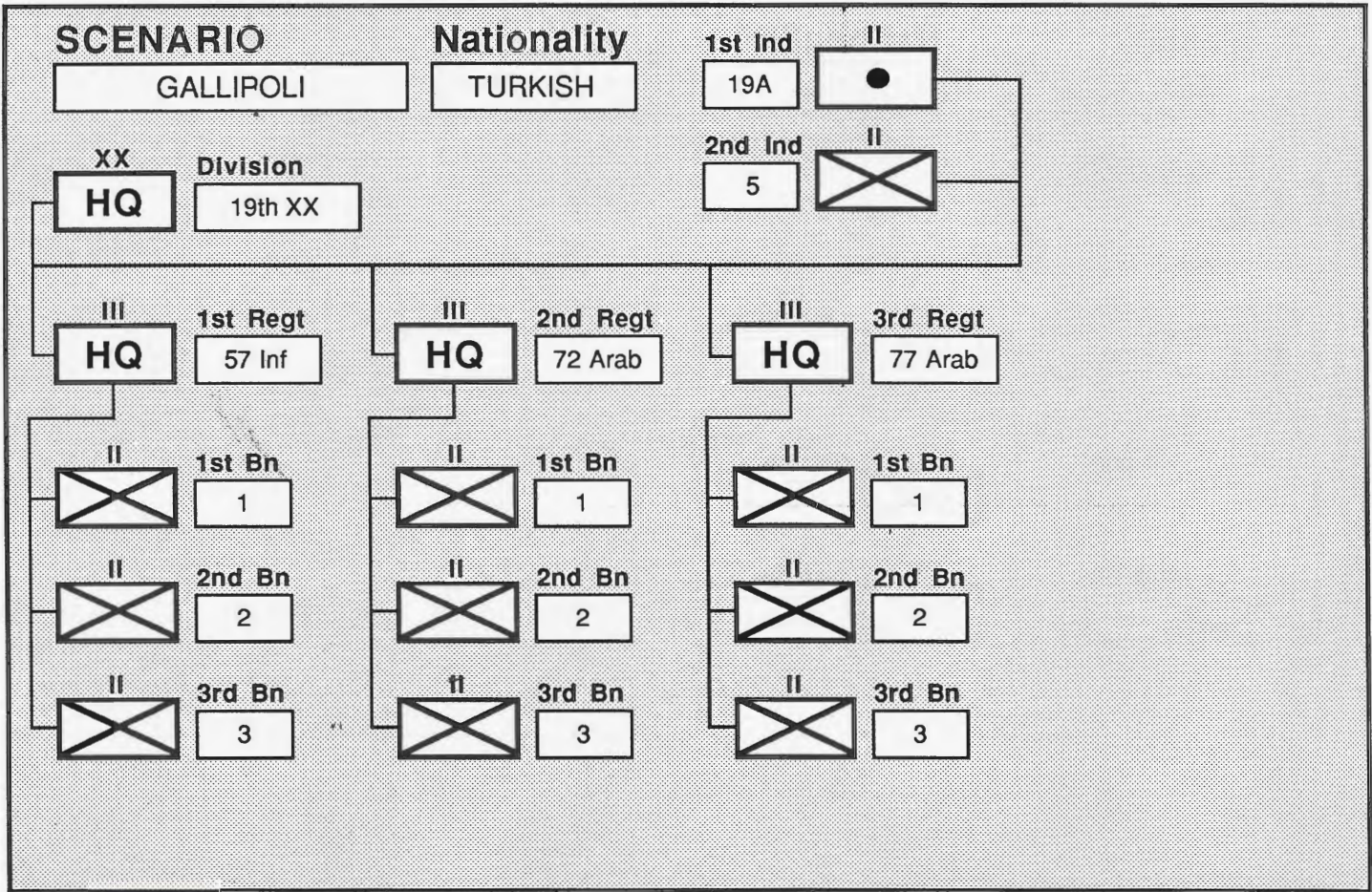
HEADQUARTERS DATA

FORMATION		XX HQ	1/RHQ	2/RHQ	3/RHQ	4/RHQ
HQ I.D.	[8]	19th XX	57 Inf	72 Arab	77 Arab	
UNIT TYPE	[8]	INFANTRY	INFANTRY	INFANTRY	INFANTRY	
HQ ADMIN	0-7	5	4	3	3	
LEADERSHIP	0-7	7	5	2	3	
HQ SUPPLY	0-7	5	6	6	6	
ARRIVAL	0-63	2	N/A	N/A	N/A	N/A
LOCATION	(x,y)	12,1	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	II/III	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	1	2	3		1	2	3		1	2	3						19A	5		
LOCATION	(x,y)	11,4	12,4	12,3		12,2	12,2	12,2		12,2	12,2	12,2						12,2	12,2		
CLASS	0-13	0	0	0		0	0	0		0	0	0						13	0		
MODE	0-3	0	0	0		0	0	0		0	0	0						0	0		
EQUIPM'T	0-31	5	5	5		6	6	6		6	6	6						7	5		
MOVEMENT	0-31	16	16	16		16	16	16		16	16	16						8	16		
STRENGTH	0-15	12	12	12		9	9	9		9	9	9						4	12		
RATING	0-15	6	6	6		4	4	4		4	4	4						6	6		
RANGE	0-15	0	0	0		0	0	0		0	0	0						15	0		
ARRIVAL	0-63	0	0	0		2	2	2		2	2	2						3	19		
FATIGUE	0-7	7	7	7		7	7	7		7	7	7						7	7		
EXPERIENCE	0-7	5	5	5		1	1	1		1	1	1						5	6		
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1		

SCENARIO

SCENARIO	GALLIPOLI
Nationality	TURKISH
1st Ind	5A
2nd Ind	Mtn
XX HQ — Division	IIIC (-)
III HQ — 1st Regt	27/9XX
III HQ — 2nd Regt	33/11XX
III HQ — 3rd Regt	64/5A

Organization:

- 1st Regt: 1st Bn 1a, 2nd Bn 1b, 3rd Bn 2, 4th Bn 3
- 2nd Regt: 1st Bn 1, 2nd Bn 2, 3rd Bn 3
- 3rd Regt: 1st Bn 1, 2nd Bn 2, 3rd Bn 3
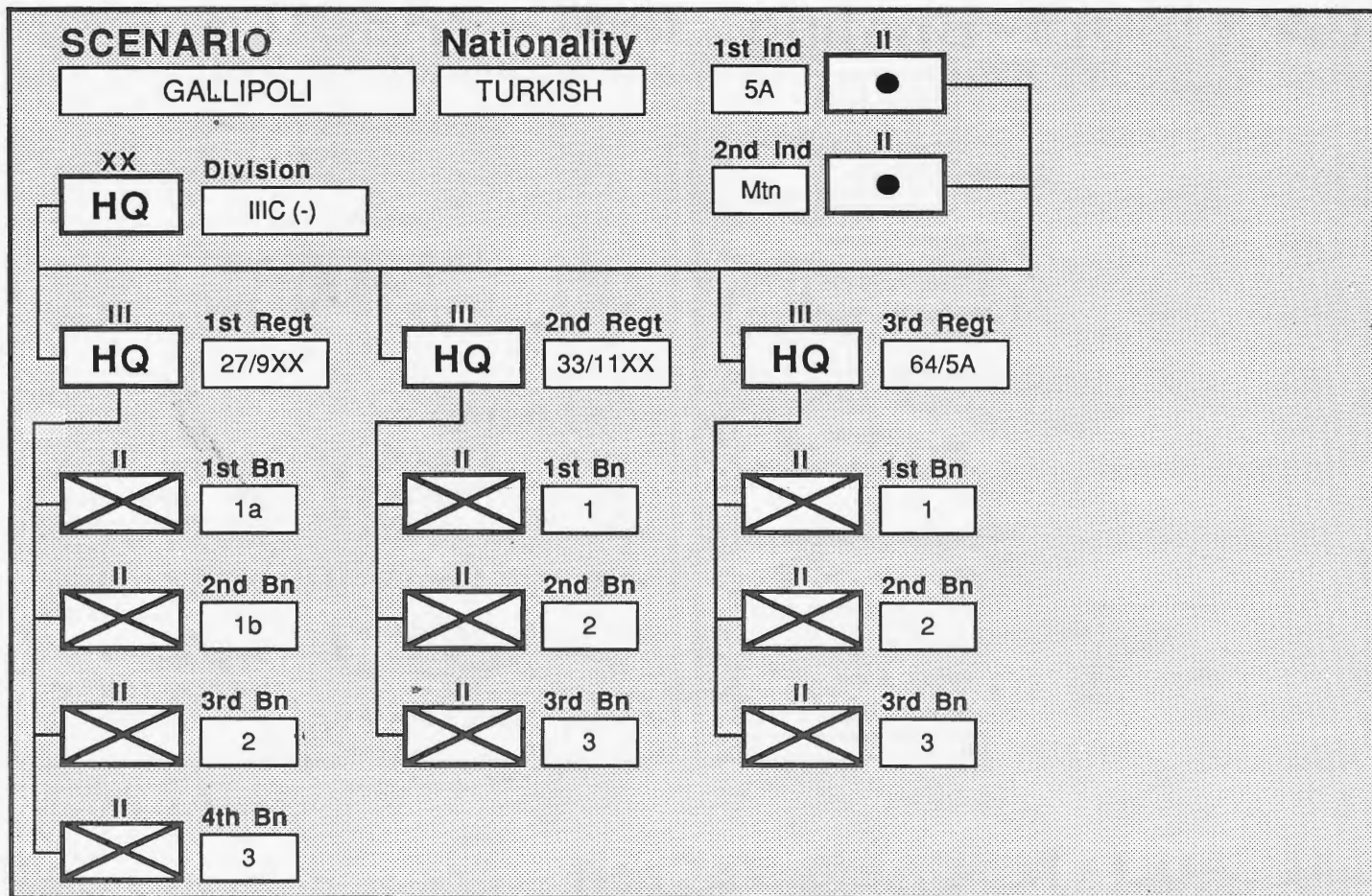
HEADQUARTERS DATA

FORMATION		XX HQ	1/RHQ	2/RHQ	3/RHQ	4/RHQ
HQ I.D.	[8]	IIIC (-)	27/9XX	33/11XX	64/5A	
UNIT TYPE	[8]	AD HOC	INFANTRY	INFANTRY	INFANTRY	
HQ ADMIN	0-7	4	4	4	5	
LEADERSHIP	0-7	4	4	3	4	
HQ SUPPLY	0-7	5	6	6	6	
ARRIVAL	0-63	3	N/A	N/A	N/A	N/A
LOCATION	(x,y)	12,3	N/A	N/A	N/A	N/A

BATTALION DATA

FORMATION	II/III	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2	1/3	2/3	3/3	4/3	1/4	2/4	3/4	4/4	1/-	2/-	3/-	4/-
UNIT I.D.	[3]	1a	1b	2	3	1	2	3		1	2	3						5A	Mtn		
LOCATION	(x,y)	5,14	6,11	10,3	10,1	12,11	12,11	12,11		12,2	12,2	12,2						12,2	8,12		
CLASS	0-13	0	0	0	0	0	0	0		0	0	0						13	13		
MODE	0-3	0	0	0	0	0	0	0		0	0	0						0	0		
EQUIPM'T	0-31	5	5	5	5	5	5	5		5	5	5						7	8		
MOVEMENT	0-31	16	16	16	16	16	16	16		16	16	16						8	12		
STRENGTH	0-15	6	6	12	12	12	12	12		12	12	12						9	2		
RATING	0-15	6	6	6	6	6	6	6		6	6	6						6	4		
RANGE	0-15	0	0	0	0	0	0	0		0	0	0						15	12		
ARRIVAL	0-63	0	0	0	0	6	6	6		7	7	7						9	0		
FATIGUE	0-7	7	7	7	7	7	7	7		7	7	7						7	7		
EXPERIENCE	0-7	3	3	3	3	3	3	3		4	4	4						4	3		
ATTACHM'T	0-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	1		

GALLIPOLI - Briefing

AXIS

SIDE [16]
TURKEY

CORPS [16]
THIRD CORPS

COMMANDER [16]
Gen von Sanders

ALLIED

SIDE [16]
THE EMPIRE

CORPS [16]
ANZAC CORPS

COMMANDER [16]
General Birdwood

SUPPORT

	DAY	NIGHT		DAY	NIGHT
QUANTITY 0-99	0	0		10	0
RELIABILITY (0-3)	0	0		0	0
RATING (0-15)	0	0		5	0

AIR SUPERIORITY (0-7)

STATUS = 3   WEAK AXIS
RELIABILITY = 7   DEPENDABLE

SCENARIO [16]
GALLIPOLI

BRIEFING [26]
The Australian Imperial Force in Action
25th Apr - 2nd May, 1915

START DATA

(1-31)	DATE = 25	
(1-12)	MONTH = 4	25th APR 1915
(0-63)	YEAR = 15	
(1-16)	LENGTH = 8	
(0-3)	WEATHER = 3	CLEAR
(0-7)	FORECAST = 7	CLEARING
(0-31)	MECH MIN = 17	

GALLIPOLI - Terrain Effects Chart

TERRAIN CODE (T0-T15)	TERRAIN NAME [10]	TERRAIN COSTS PER HEX		ATTACK EFFECTS		
		MECH (0-31)	NON-MECH (0-31)	ARM (0-7)	ART (0-7)	INF (0-7)
T0	OCEAN	0	0	0	0	0
T1(RET)	OPEN	17	2	-	7	7
T2	-	-	-	-	-	-
T3	SLOPE	17	4	-	3	4
T4	WOOD/SLOPE	17	4	-	2	3
T5	RIDGE	17	6	-	2	2
T6	-	-	-	-	-	-
T7	GULLY	17	2	-	5	6
T8	-	-	-	-	-	-
T9	-	-	-	-	-	-
T10	PEAK	17	6	-	2	2
T11	-	-	-	-	-	-
T12	-	-	-	-	-	-
T13	-	-	-	-	-	-
T14	-	-	-	-	-	-
T15	-	-	-	-	-	-
-	ROAD	9	1	N.A.	N.A.	N.A.
-	FORT	N.A.	N.A.	7	7	7
-	TOWN	N.A.	N.A.	7	7	7
-	BRIDGE	0	0	7	7	7
-	RIVER	N.A.	0	7	7	7

GALLIPOLI - Objectives

I.D. (1-24)	NAME [11]	MAP LOC [x,y]	START (0-63)	END (0-63)	POINTS PER TURN (0-30)	POINTS AT END (0-255)
1(AX)	Monash Gul.	4,11	9	31	5	100
2(AX)	The Sphinx	5,9	9	31	5	50
3(AX)	Turkey Kn.	5,14	9	31	5	50
4(AX)	Rus'lls Top	6,8	9	31	5	50
5(AX)	MacLaurin's	6,11	9	31	5	50
6(AX)	Table Top	7,1	17	31	2	10
7(AX)	Sniper Nest	7,4	13	21	3	25
8(AX)	Quinns Post	7,9	13	31	5	50
9(AX)	Baby 700	8,7	17	31	3	25
10(AX)	B'ship Hill	10,5	25	31	2	10
11(AX)	Anderson K.	10,18	25	31	2	10
12(AX)	Scrubby Kn.	11,7	29	31	2	10
1(AL)	Monash Gul.	4,11	0	12	10	10
2(AL)	The Sphinx	5,9	0	16	10	20
3(AL)	Turkey Kn.	5,14	0	16	10	20
4(AL)	Rus'lls Top	6,8	0	16	10	20
5(AL)	MacLaurin's	6,11	0	16	10	20
6(AL)	Table Top	7,1	0	31	5	50
7(AL)	Sniper Nest	7,4	0	31	5	50
8(AL)	Quinns Post	7,9	0	31	5	50
9(AL)	Baby 700	8,7	0	31	10	100
10(AL)	B'ship Hill	10,5	0	31	25	100
11(AL)	Anderson K.	10,18	0	31	10	100
12(AL)	Scrubby Kn.	11,7	0	31	10	100

GALLIPOLI - Miscellaneous Factors

ADJACENT ENEMY HEX PENALTY (0-15)			
1st HEX = 5	4th HEX = 15
2nd HEX = 10	5th HEX = 15
3rd HEX = 15	6th HEX = 15

VICTORY POINTS PER STRENGTH POINT LOST (0-15)	MECH	NON MECH
AXIS	0	3
ALLIED	0	5

MAP SIZE	
ACROSS (0-2)	0
DOWN (0-3)	2

*In future issues of **Run 5** of we intend to present the aircraft of all the major combatants of WWII in a format suitable for use in **Europe Ablaze** scenarios. In this installment, all the major production aircraft, and the more interesting minor types, used operationally by Germany between 1939 and 1945 are tabled in **Europe Ablaze** format.*

In Part Two, aircraft belonging to the other Axis powers will be presented. Parts Three and Four will cover Allied aircraft of World War II.

LUFTWAFFE ORGANIZATION

The existance of the *Luftwaffe* was not formally announced to the world until March 1st, 1935 although it had been growing surruptiously since the early 20s.

The basic Luftwaffe unit was the *Staffel*, a group of 9-12 aircraft. Three Staffeln, together with a three plane command element (the *Stab*), were combined to form a *Gruppe* and three Gruppen formed a *Geschwader*. Fighter units were known *Jagdgeschwader* (JG), bomber units as *Kampfgeschwader* (KG), heavy fighter units as *Zerstorergeschwader* (ZG), dive bomber units as *Stukageschwader* (St.G) and ground attack units as *Sturmgeschwader* (SG).

Four Luftflotten were created in 1939 to control air defence. Each Luftflotte contained from 1-3 air divisions. Two further Luftflotten were created during the war; Luft. 5 in Norway and Luft. 6 on the eastern front. Toward the end of the war, specialized, independent fighter commands (Jagdkorps) were formed.

Geschwader designations corresponded to the Luftflotte in which the unit was raised; Luft. 1 (1-25), Luft. 2 (26-50), Luft. 3 (51-75) and Luft. 4 (76-99).

Geschwader were identified by an arabic number (e.g. KG54), Gruppen by a roman numeral (e.g. II/ZG1) and Staffeln again by an arabic number.

NOTES

The following notes are intended to give a brief summary of operational histories as well as to identify the more important modifications made to major aircraft types. The arrangement in this section corresponds to the order in the tables overleaf.

Ar66C. Single engine trainer. Used on the Russian front (1944) for night harassment bombing.

Ar68E. Single engine fighter. Equipped 3 night fighter *staffeln* at start of war. Discarded early 1940.

Ar234B (Blitz). Twin engine jet reconnaissance-bomber. Recon model first used in July, 1944. Bomber version used in the Ardennes Dec, 1944. Only proper jet bomber to see action in WWII.

Bv138A. Three engine, long-range, maritime reconnaissance flying boat. In service 1940-1945.

Do17 Series. Twin engine medium bomber. E model phased out by 1939. P model converted to recon role 1939-40. Improved Z model in service until late 1942 then relegated to recon and transport duties.

Do215B. Twin engine, long-range reconnaissance bomber. In service 1940-42.

Do217 Series. Twin engine heavy bomber. E model in service 1941-43. M model (heavy night bomber) in service 1942-45. N model (night fighter interceptor) in service 1943-44.

Do335A (Pfeil). Tandem engine (tractor/pusher) fighter. Entered service Jan, 1945.

Fi156C (Storch). Single engine, army co-operation aircraft. Used throughout the war for tactical reconnaissance as well as many clandestine operations.

Fw189A (Uhu). Twin engine tactical reconnaissance. In service 1942-45 Russian front. Limited use as a night fighter 1942.

Fw190 Series. Single engine fighter. The best piston engined fighter produced by Germany in the war. A model was principal variant and operated as a fighter or fighter-bomber from 1941 to end of war. D model used to protect Me262 landing fields, 1944. F model was ground attack variant, in service from 1943-45. G model used as long-range fighter bomber from 1943-45.

Fw200C (Condor). Four engine, long-range, maritime reconnaissance bomber. In service throughout the war in maritime, transport and communications capacities. Earned fiercesome reputation among Allied merchant ships as *Scourge of the Atlantic*, 1940-41.

Ta152H. Single engine, high altitude fighter. Entered service Jan 1945 but too late to see much action.

Go145C. Single engine, night ground attack. Used throughout the war as a trainer but saw action on the Russian Front 1943-45 in a night harassment role.

He45C. Single engine, light reconnaissance bomber. Served in recon role in pre-war Luftwaffe. Used in a night bombing role in Russia 1943-44.

He46C. Single engine tactical reconnaissance. Relegated to training duties in early war years, then employed in night bombing role in Russia 1943.

He59B. Twin engine torpedo reconnaissance floatplane. Employed 1939-43 in coastal duties North Atlantic and North Sea. Relegated to training role in later years.

He60C. Single engine reconnaissance floatplane. Pre-war employment with *Kreigsmarine* capital ships then used in coastal patrols 1940-42 in North Sea.

He100D. Single engine interceptor fighter. Attempt to regain *Luftwaffe* fighter contract lost to Bf109. A promising design not proceeded with.

He111 Series. Twin engine medium bomber. E model saw action in Poland and Norway. Improved P and H models used throughout the war in bombing, transport and training duties. Principal German bomber in the Battle of Britain.

He112B. Single engine fighter. Original contender for *Luftwaffe* contract but defeated by Bf109. Most production aircraft exported to Rumania or Japan.

He114A. Single engine, maritime reconnaissance floatplane. Limited use Baltic and Black Sea 1941-43 before being sold to Sweden and Spain.

He115C. Twin engine torpedo bomber floatplane. Principal German attack/recon floatplane for most of WWII.

He162A (Spatz). Single engine jet interceptor fighter. Mass production project which failed to mature in time. One *Gruppe* formed in the last days of the war but probably saw no action.

He177A (Greif). Four (in unique 2X2 coupled arrangement) engine heavy bomber. Entered service Jun 1942 but engine and other problems delayed extensive use until early 1944.

He219A (Uhu). Twin engine night fighter. First purpose built night fighter. Its good performance was ignored and it saw only limited use from 1942-45.

Hs123A. Single engine dive bomber. Formed a specialized ground attack *Gruppe* in Polish and French campaigns then in sporadic use in Russia until 1944.

Hs129B. Twin engine anti-tank aircraft. Used extensively in Russia from 1943-45 but chronic power plant failures reduced the effectiveness of this heavily armoured bomber.

Ju86R. Twin engine, high altitude reconnaissance bomber. Pre-war bomber converted to recon role and used extensively 1940-43.

Ju87 Series. Single engine dive bomber. B model equipped front line units 1939-41 but vulnerability to enemy fighters reduced its effectiveness. Replaced by D model late 1941 but again vulnerability to Allied fighters curtailed its use. Anti-tank version remained in operation until the end of the war on the Russian Front.

Ju88 Series. Twin engine medium bomber. More Ju88s were built than any other bomber. Initial A model entered service in 1940 and, with many modifications, remained the main production variant throughout the war. C model used as a day and night fighter in defence of the Reich 1943-44. D model used for long-range recon 1943-45. G model, an improved night fighter, saw action from early 1944 through to the war's end. S

model used as a high speed bomber in the closing months of the war.

Ju188E. Twin engine medium bomber. A development of the Ju88, this bomber entered service mid 1943 and served in bombing and recon roles until the end of the war.

Ju288B. Intended as replacement for Ju88 but after a troubled four year development, the project was abandoned. The few production aircraft completed saw action in Russia in early 1945.

Ju290A. Four engine, long-range maritime reconnaissance. Used in Atlantic operations 1943-44, then later as transports and special purpose aircraft.

Bf109 Series. Single engine fighter. More aircraft of this type were built than any other, Axis or Allied, in WWII. D model used in Polish campaign but relegated to interim night fighter thereafter; phased out in late 1940. E model was the major variant in use in early campaigns being gradually phased out through 1941. Improved F model entered service in 1941 and was the principal variant for the next year. The G model was numerically the most important variant and saw service everywhere from mid 1942 until the end of the war. K model in use 1944-45.

Bf110 Series. Twin engine heavy fighter. C model in service 1939 and performed well until engaged by high performance British fighters in the Battle of Britain; used as a night fighter until phased out 1942. E model used as long-range fighter-bomber then as interim night fighter until end 1942. G model used extensively as day and night fighter in the defence of the Reich 1942-45.

Me163A (Komet). Rocket propelled interceptor fighter. In service from mid 1944 but shortage of fuel and skilled pilots resulted in poor performance.

Me210A. Twin engine heavy fighter. Intended replacement for Bf110 but proved a complete failure. Saw limited action in the Mediterranean and Russia as fighter-bomber and/or long-range recon from 1942-44.

Me262A (Schwalbe). Twin engine jet fighter. Fighter version entered service late 1944 and acquitted itself very well against the best of the Allied fighters. Delay caused by misuse as a ground attack bomber.

Me410A (Hornisse). Twin engine heavy fighter. Successful redevelopment of the Me210 which entered service in early 1943 and was widely used in all theatres until the end of the war. ◆

GERMAN AIRCRAFT OF WWII

NAME	[11]	-	-	Blitz	-	-	-	-	-	-	-
DESIGNATION	or[11]	Ar66C	Ar68E	Ar234B	Bv138A	Do17E	Do17P	Do17Z	Do215B	Do217E	Do217M
ROLE	0-3	2	0	2(3)	3	2	3	2	3	2	2
CREW	0-7	2	1	1	6	3	3	4	4	4	4
FUEL	1-255	51	27	42	173	74	88	69	65	83	73
PAYLOAD	0-63	1	0	11(0)	2	6	0	8	4	29	29
SERVICE CEIL.	11-41	15	27	33	12	20	23	23	30	30	31
MAX. SPEED	1-41	7	10	23	8	11	13	13	16	16	17
OPT. ALTITUDE	1-31	7	9	20	3	7	13	13	17	17	19
CRUIS. SPEED	1-31	5	7	18(20)	8	8	11	11	14	12	12
CLIMB RATE	1-15	4	12	8	4	3	4	3	8	3	4
FIREPOWER	0-7	1	2	2	2	2	1	2	3	4	4
MANOEUVER.	0-7	6	7	4	0	3	3	3	3	2	2
VULNERABILITY	0-7	3	2	5	4	2	3	3	3	3	4
NIGHT	Y/N	Y	Y	N	N	N	N	N	N	N	Y
TOT. PROD.	[#]	c.1,650	c.200	c.250	c.280	c.180	c.580	c.520	c.100	c.800	c.600

NAME	[11]	-	Pfeil	Storch	Uhu	-	Langnase	-	-	Condor	-
DESIGNATION	or[11]	Do217N	Do335A	Fi156C	Fw189A	Fw190A	Fw190D	Fw190F	Fw190G	Fw200C	Ta152H
ROLE	0-3	0	0	3	3(1)	0(1)	1	1	1	2	0
CREW	0-7	4	1	2	3	1	1	1	1	6	1
FUEL	1-255	50	37	36	35(31)	26(41)	24	20	26	163	34
PAYLOAD	0-63	0	4	0	2(0)	0(5)	4	2	10	13	0
SERVICE CEIL.	11-41	33	37	17	23	37	38	36	38	19	41
MAX. SPEED	1-41	16	24	5	11(12)	20(18)	21	18	20	11	24
OPT. ALTITUDE	1-31	20	21	3	8	20	22	18	20	16	31
CRUIS. SPEED	1-31	13	14	4	10	15(14)	15	13	13	8	16
CLIMB RATE	1-15	7	15	5	5	12(11)	15	11	11	5	15
FIREPOWER	0-7	7	4	1	3(5)	6(4)	4	4	2	4	4
MANOEUVER.	0-7	3	5	7	3	7(5)	7	7	5	2	7
VULNERABILITY	0-7	4	5	6	3	5	5	5	5	2	6
NIGHT	Y/N	Y	N	N	N(Y)	N	N	N	N	N	N
TOT. PROD.	[#]	c.360	c.40	c.2,900	c.850	c.14,000	c.700	c.1900	c.3,000	c.275	c.200

NAME	[11]	-	-	-	-	-	-	-	-	-	-
DESIGNATION	or[11]	Go145C	He45C	He46C	He59B	He60C	He100D	He111E	He111H	He111P	He112B
ROLE	0-3	2	2	2	3	3	0	2	2	2	0
CREW	0-7	2	2	2	4	2	1	4	5	4	1
FUEL	1-255	39	49	42	48	41	20	56	83	68	34
PAYLOAD	0-63	1	3	2	8	0	0	16	24	16	1
SERVICE CEIL.	11-41	12	18	20	11	16	36	23	26	26	28
MAX. SPEED	1-41	7	8	8	7	7	21	12	13	12	16
OPT. ALTITUDE	1-31	3	7	3	3	3	16	13	16	15	14
CRUIS. SPEED	1-31	6	7	7	6	6	17	11	11	11	12
CLIMB RATE	1-15	3	6	6	4	5	14	2	2	2	10
FIREPOWER	0-7	1	2	1	1	1	3	1	3	2	4
MANOEUVER.	0-7	7	7	7	1	3	6	3	3	3	6
VULNERABILITY	0-7	2	3	2	3	3	5	2	3	3	3
NIGHT	Y/N	Y	Y	Y	N	N	N	N	N	N	N
TOT. PROD.	[#]	c.9,500	c.510	c.480	c.130	c.250	c.25	c.720	c.6,150	c.520	c.70

NAME	[11]	-	-	Spatz	Greif	Uhu	-	-	-	Stuka	Stuka
DESIGNATION	or[11]	He114A	He115C	He162A	He177A	He219A	Hs123A	Hs129B	Ju86R	Ju87B	Ju87D
ROLE	0-3	3	2(3)	0	2	0	2	2	3	2	2
CREW	0-7	2	3	1	5	2	1	1	2	2	2
FUEL	1-255	38	148	18	151	65	32	26	59	27	43
PAYLOAD	0-63	1	9(4)	0	44	0	4	3	8	4	13
SERVICE CEIL.	11-41	16	17	39	23	37	30	30	41	27	24
MAX. SPEED	1-41	10	9	28	16	22	11	13	13	12	13
OPT. ALTITUDE	1-31	3	3	20	19	17	4	13	30	11	14
CRUIS. SPEED	1-31	9	9	20	13	16	10	10	11	8	8
CLIMB RATE	1-15	4	3	10	3	9	13	7	4	1	7
FIREPOWER	0-7	1	1	3	4	6	3	4	1	4	1
MANOEUVER.	0-7	5	3	6	0	4	5	4	3	2	4
VULNERABILITY	0-7	3	2	7	5	4	3	3	4	3	3
NIGHT	Y/N	N	N	N	N	N	N	N	N	N	N(Y)
TOT. PROD.	[#]	c.100	c.150	c.270	c.900	c.300	c.75	c.870	c.470	c.2,000	c.600

NAME	[11]	-	-	-	-	-	-	-	-	-	-
DESIGNATION	or[11]	Ju88A	Ju88C	Ju88D	Ju88G	Ju88S	Ju188E	Ju288B	Ju290A	Bf109D	Bf109E
ROLE	0-3	2	0	3	0	2	2	2	3	0	0
CREW	0-7	4	3	4	4	3	4	4	7	1	1
FUEL	1-255	85	57	135	60	104	61	72	252	19	18
PAYLOAD	0-63	26	0	0	0	15	22	23	0	0	0
SERVICE CEIL.	11-41	27	32	29	33	38	31	31	20	29	34
MAX. SPEED	1-41	14	15	18	18	19	16	19	14	16	18
OPT. ALTITUDE	1-31	20	20	15	25	26	20	18	19	12	12
CRUIS. SPEED	1-31	12	13	13	14	14	12	4	11	13	14
CLIMB RATE	1-15	4	8	5	7	5	4	7	3	13	15
FIREPOWER	0-7	2	6	1	6	1	3	3	4	4	5
MANOEUVER.	0-7	2	3	3	3	3	3	3	0	5	5
VULNERABILITY	0-7	4	4	4	5	5	4	5	5	3	4
NIGHT	Y/N	N	Y	N	Y	N	N	N	N	N	N
TOT. PROD.	[#]	c.7,500	c.3,200	c.1,500	c.2,800	c.500	c.1,100	c.30	c.70	c.300	c.4,000

NAME	[11]	-	-	-	-	-	-	Komet	-	Schwalbe	Hornisse
DESIGNATION	or[11]	Bf109F	Bf109G	Bf109K	Bf110C	Bf110E	Bf110G	Me163A	Me210A	Me262A	Me410A
ROLE	0-3	0	0	0	1	1	0	0	1	0(1)	0
CREW	0-7	1	1	1	3	3	3	1	2	1	3
FUEL	1-255	22	25	17	48	68	55	9	48	24(26)	44
PAYLOAD	0-63	0	0	0	4	3	0	0	8	0(4)	0
SERVICE CEIL.	11-41	36	39	41	33	33	26	40	23	36	33
MAX. SPEED	1-41	19	19	23	17	16	17	30	18	27(24)	19
OPT. ALTITUDE	1-31	20	23	20	20	11	23	10	18	22(20)	26
CRUIS. SPEED	1-31	16	14	15	11	10	14	20	14	22(19)	18
CLIMB RATE	1-15	15	15	15	10	10	11	15	9	15	11
FIREPOWER	0-7	4	4	4	5	3	6	3	4	6(4)	7
MANOEUVER.	0-7	6	6	6	3	3	4	7	3	6(5)	3
VULNERABILITY	0-7	4	5	6	3	3	4	7	4	7	4
NIGHT	Y/N	N	N	N	N	N	Y	N	N	N	Y
TOT. PROD.	[#]	c.2,200	c.23,500	c.400	c.1,400	c.3,000	c.1,500	c.400	c.550	c.1,100	c.1,150

left in the code to aid an unscrupulous programmer.)

There have been a number of problems using this system, the principal one being that only one game can be played per day. At Origins '86, the tournament organisers solved this problem quite deftly.

For each round a different universe (and start conditions) was created. Every player used the same system in his battle against three computer opponents with a 45 minute time limit. These parameters favour fast, intelligent play. Competitors wasted no time waiting for others to make their moves and thus had plenty of time to enjoy the rest of the convention. I would like to congratulate the organisers and I hope to see them again in Baltimore. ◆

SOME VARIATIONS

1. Menendez chose to deploy his best troops at Stanley airport to defend the beaches in the area. They were not redeployed, even when the scale of attacks in the west made the likelihood of an invasion remote. We can assume that these formations were released in time to contest the British advance. Add the second Argetine formation (Bda IX on p. 27) to the Argentine OB.

2. Had the Argentine forces possessed even adequate leadership, the British would have had a much tougher battle. To reflect this situation, increase the admin, supply and leadership values for all Argentine headquarters by 2 and increase the fatigue level of all Argentine units by 3.

3. Most of the ground attack Pucara aircraft sent to the Falklands by the Argentine were destroyed before the final battle began. Assume more precautions had been taken to preserve them. Increase the Argentine day ground support points by 10. ◆

must get into his tank and attempt to drive across the steppes of Russia.

As a measure of just how many games have been designed on the war in Russia, I had a look through my game collection and found fourteen titles there. It was a tough job to come up with a different name for the game. They've all been used once, if not twice, before.

In the end we opted for simplicity. Our game will be called *Russia, The Great War in the East, 1941-45*.

In the last couple of years or so, Roger and I have learned a lot about squeezing historical events into computers and, armed with this experience, we were surprised just how sweetly our original concept for this game has blossomed into a working prototype.

As I write these words, we are hooking up the order menus which will drive the game. The design routines are completed as are the movement routines which will propel the protagonists across the map.

Our unit structures and command relationships, down to divisional level, reflect the actual OKH and Stavka models. The senior command positions in the game will be responsible for OKH or Stavka operations. These occur once per month and are basically strategic in direction.

They involve the allocation of economic resources (manpower, equipment and armour points) to produce infantry, motorized and armoured divisions, air points, ground points and replacements for each type of division. The newly built units go into the reinforcement track, their arrival date determined by the degree of training specified for them.

OKH (Stavka) determines supply priorities and doctrine, distributes reserves and support points (both air and ground) to Army Groups (Theatres), allocates forces to the off-map areas (Northern Finland, Caspian, Siberia, Western Front, etc) and creates, disbands and re-attaches Armies (Fronts) and Corps (Armies).

The unit of manoeuver is the Corps (Army) and its divisional components do the fighting. The three basic types of divisions are infantry, motorized/mechanized and armour. Cavalry, mountain, Siberian, Soviet Guards, Axis Allied and other specialized formations are specified at Corps (Army) level.

Corps are attached to Armies (a variable number from 1 to 6) and receive their primary orders through them. In contact with the enemy, however, each Corps can be given an independent combat order. Likewise, Armies are attached to Army Groups.

In addition to the OKH (Stavka) role, players may command one or more Army Groups (Theatres). The Germans have three AGs, rising later to four. The Soviets have three Theatres. Campaign and battle scenarios will be provided. In both cases, you will have access to a detailed design kit which can be used to totally redesign the start parameters of a campaign scenario or to produce limited battle scenarios.

A battle scenario involves a single Army Group (Theatre) per side and a reduced area of the map. OBs are generated from scratch and full briefing details are entered to provide an exciting game of 1 to 30 weeks (turns) duration which can be completed in less than two hours; the same amount of time that it takes to play a game of *Battlefront*.

The campaign scenario will be a tremendous challenge. You can accept the historical start parameters (leastways my evaluation of them, which makes for a thoroughly pro-Soviet game) or you can get into the design kit and alter, among other things, the production point costs for the various types of divisions, the dates at which divisions evolve into newer models, the combat values of divisions, the production point generation schedule and the victory point schedule (based on city values). Or you can vary the start forces, alter admin, experience or supply values. Whatever you like.

The map is composed of 12 9 hex by 9 hex sections and covers the area bounded by Berlin, Leningrad, Sevastopol and Saratov at a scale of 40 miles per hex.

The rail network is represented and forms a vital part of logistic and communication functions. Seventy-six cities are identified and all the movement and navigation routines are built around them. In addition to a basic terrain type, every hex is rated for a communications value which, combined with the current weather, determines the validity of overland supply paths.

And there's lots more! By the time you receive Issue 5 we expect the game to be on the market. Please buy a copy! ◆