# HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING DEPARTMENT

## **DIPLOMA PROJECT**

UHF/VHF FIELD STRENGTH MEASUREMENTS AND RECORDINGS

by GEORGIOU MARINOS (E/973)

**JUNE 1995** 

### HIGHER TECHNICAL INSTITUTE ELECTRICAL ENGINEERING DEPARTMENT ACADEMIC YEAR 1994-1995

# UHF/VHF FIELD STRENGTH MEASUREMENTS AND RECORDINGS

E.973

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Project Report
submitted to the
Department of Electrical Engineering
of the Higher Technical Institute
Nicosia, Cyprus.
In partial fullfilment of the requirements
for the diploma of

TECHNICIAN ENGINEER

IN

ELECTRICAL ENGINEERING

JUNE 1995

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TO MY FAMILY

#### **ACKNOWLEDGEMENTS**

I would like to express my thanks to my project supervisor, Dr Christos Marouchos for his help and quidance given throughout the project period.

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# CHAPTER ONE

INTRODUCTION

#### CHAPTER 1

#### 1.1 Introduction

In Cyprus, there are six TV Channels that broadcast all over the island.

These stations are:

- 1. CyBC 1
- 2. CyBC 2
- 3. ET 1
- 4. Logos TV
- 5. ANT1 TV
- 6. Sigma TV

All TV stations reside in Nicosia, except ET 1 that reside in Athens, Greece.ET 1 signal is received from Athens via satellite by the Arc. Makarios satellite station (CYTA).From this station the signal is received (via radio link) and broadcasted by CyBC in Nicosia.All TV channels broadcast in UHF.

The first TV channel started broadcasting in island was CyBC 1 .The last six years the other five TV stations have started broadcasting.

There are many transmitters all over the island with various powers, at various altitudes and transmitting in various direction, in order to cover the whole island. All these transmitters are clearly marked on a map of Cyprus (Fig.1). The Nicosia area is highly populated and a separate map is prepared (Fig.2).

Field measurements are presented for each TV channel taken at the H.T.I laboratory. They are compared with theoretical values.

The various TV stations are not transmitting from the same point. Hence more than one antenna are needed. In this project, this need is investigated for proper reception.