

**Please print out and
complete this document
to enable our engineers
to design and quote
accurately for your
installation.**

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Registered in England no. 01568506 VAT Registration no. Gb680 0269 46 R/O 8 Lonsdale Gardens Tunbridge Wells TN11 1JU



SCARECROW

BIO-ACOUSTIC SYSTEMS

KEEPING BIRDS AT BAY

QUESTIONNAIRE

SCARECROW DISPERSAL SYSTEMS:

SEVEN ANSWERS WE REQUIRE FROM YOU TO ACHIEVE BEST PRACTICE

For permanently installed land based systems to be successful and efficient, loudspeaker layout, direction and positioning, has to be designed for each site, considering such factors, but without limitation, as those itemised 1-7 below.

1. Site plan

The provision of a **scaled site plan** to SCARECROW planning engineers is essential to the success of any dispersal system design and its functional efficiency. Photographs of the current areas of bird occupation will be a very helpful addition.

The site plan should include identification of the main building/office/administration area, a possible location for the central processor electronics and information about overhead lighting, lamp or cable ‘stringing’ posts for consideration as cost effective loudspeaker mounting positions, if relevant to the dispersal process.

Please mark NORTH/SOUTH on a site plan and the PREVAILING WIND DIRECTION

2. Position relative to areas of population, beaches, the sea, industry etc

Sites close to the sea could have higher volumes of birds than those in an urban location and might need more frequent dispersal broadcasts. Those sites in an industrial environment, with consequent higher ambient noise levels, may require increased sound levels than are necessary in a country situation.

Sites close to residential housing may need a greater concentration of loudspeakers within the dispersal area of the site, with lower sound output to minimize the overspill of sounds into the residential area.

Is the site: (please delete as necessary)

- | | | | |
|----------------------------------|--------|-------------------|--------|
| 1. Close to residential housing? | YES/NO | 2. By the Sea? | YES/NO |
| 3. In an industrial area? | YES/NO | 4. On a cliff? | YES/NO |
| 5. A shopping precinct? | YES/NO | 6. An Urban area? | YES/NO |

Other?

What is the site POST CODE?

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3. Main bird species present

By knowing the range of species visiting the site and any seasonal changes, the central Processor will be equipped with dispersal calls specific to the site requirements and will be site programmable.

Please state the problem birds:

- | | | |
|--------------------|----------------------|-------------------|
| Herring Gull | Blackhead Gull | Common Gull |
| Lapwing | Starling | Crow |
| Rook | Pigeon | Jackdaw |
| Magpie | Other | Other |

4. Where, within the site, do birds most frequently gather?

By marking the site plan, or by other means, we need to know where within the site birds most frequently gather; for example, where food is stored, processed, distributed, eaten, or disposed of by willful discarding, or by depositing in open top waste storage bins.

Please mark these positions on your site plan and advise us below of any points you feel relevant to our mutual objectives.

5. Areas in proximity to the site which may influence the presence of birds at the site

Examples of these would be beaches, landfill, food processing, storage or handling, or other types of locations which birds may find especially attractive.

Some species will use the problem site as an area they consider less vulnerable or dangerous than where a good source of food exists. A good example would be a landfill or tip area for access to food and within short flying distance, a warm, cosy, flat roof of a high rise building for roosting, nesting etc.

The presence of an animal farm or bird sanctuary nearby the site designated for the dispersal, for example, would also influence loudspeaker positioning so as to avoid any unnecessary disturbance or stress to their inhabitants.

6. Architectural features of the subject structure/building/site that might encourage birds to visit, nest or roost

Buildings or sites may have features that encourage birds to visit, nest or roost.

SCARECROW engineers may position loudspeakers to especially discourage the use of these features. In the case of a building it might be recommended that architectural features, a small aperture being a potential nesting/roosting position, for example, be treated by other methods.

- Are there any building features to bring to our attention?
- Holes that birds nest within?
- Masts?
- Heating/Air Conditioning outlets?

7. How would you describe the site ambient noise levels as compared to:

Leaves rustling	<input type="checkbox"/>	Noisy Office	<input type="checkbox"/>	Typical office	<input type="checkbox"/>
Countryside	<input type="checkbox"/>	Supermarkets	<input type="checkbox"/>	Discotheque venue, on dance floor	<input type="checkbox"/>
Quiet house, average residential area	<input type="checkbox"/>	Pneumatic Drill, Express Train passing through station, Car Horn at 1m	<input type="checkbox"/>		

SCARECROW planning engineers will use all of the information given to form an opinion of the best positioning of loudspeakers to do the job for which our MARINA and ONE-SHOT Processors are designed.

N.B. Whilst there might be some final siting concessions for loudspeakers, radical changes in positioning is not encouraged since this is very likely to prejudice the ultimate efficiency of the dispersal system, with the potential to cause nuisance in surrounding areas.

IF IT IS CONSIDERED THAT A SITE SURVEY BY ONE OF OUR TEAM IS PREFERRED THIS CAN BE ARRANGED. A BASIC CHARGE OF £400.00 PLUS TRAVELLING TIME AND COSTS TO AND FROM THE SITE WILL BE PAYABLE IN ADVANCE.

SCARECROW MARINA AND ONE-SHOT INSTALLATIONS:

WHY WE RAISE IMPORTANT POINTS REQUIRING A RESPONSE FROM YOU

SCARECROW technology represents an entirely novel scientific approach to bird control and dispersal which is both humane and hygienic and does not harm the birds.

SCARECROW dispersal systems are intended for permanent installation at sites with a major bird problem – MARINAS, SHIPS, DOCKS, HARBOURS, BEACHES, OFFSHORE HELIDECKS, OIL & GAS PLATFORMS, PUBLIC BUILDINGS and PLACES, HISTORIC BUILDINGS – anywhere that birds present a safety or health hazard, or just plain nuisance.

Importantly, natural bird calls played at natural levels are not intrusive and sometimes not even noticed in places where the public may be present; not so with any other dispersal methods, unnatural sounds, holography, dummy birds or flashing lights, to all of which birds may eventually become habituated.

The areas and structures that are, or are likely to be, occupied by birds have to be fully identified; this means defining the areas to be properly covered by the loudspeakers to be installed, with the object of minimising ‘overspill’ to surrounding areas, where their sound may be intrusive and unnecessary.

Using fully automatic and “random” electronic processors, dispersal can take place without human intervention 24 hours a day, or from dawn to dusk, as the location demands; for this, an ambient light sensor is available. Where artificial light is in the majority and therefore prejudices the use of an ambient light sensor, a a.c. mains supplied 24hr, 7day time clock can replace this. Note that this shall not be used to disconnect the system from its supply; specify a product with a volt free contact pair, to connect these to the Processor control circuits by a cable pair.

ABOUT THE LOUDSPEAKERS WE USE

SCARECROW engineers use only high quality, high efficiency, loudspeakers designed for external use in all types of environments and weather conditions, including for use where there is a potential for explosion or chemical hazard.

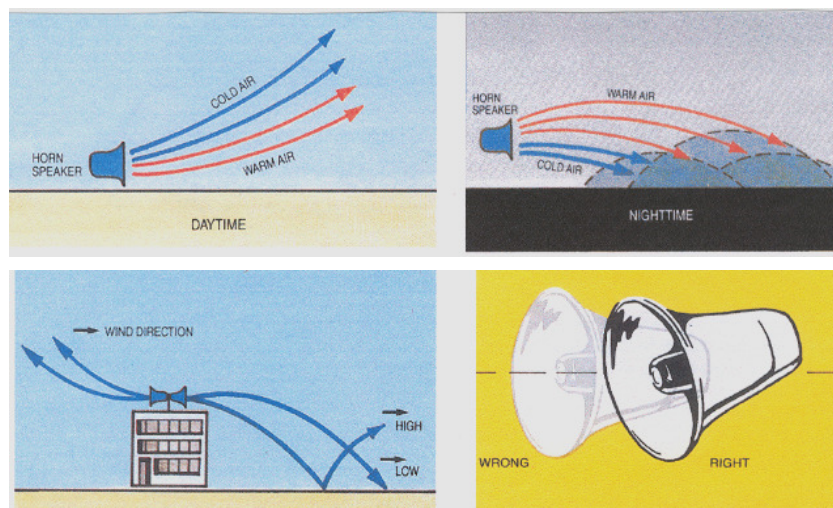
All the loudspeakers we use are defined as re-entrant horns; a small efficient ‘driver’ feeds sound into a specially designed tube of increasing diameter and of a length calculated to perform to a required efficiency and frequency response.

Generally, the larger the horn in length and final diameter, the greater the efficiency and directivity. The horn is folded within itself – the reason they are called re-entrant horns – to make them smaller and therefore less environmentally obtrusive, yet maintaining sound quality and efficiency.

By using their directional properties and installing an appropriate number of loudspeakers, it is possible to very efficiently cover the area from where birds are to be dispersed and keep most of the reproduced sounds within the area, with minimum overspill.

EXTERNAL MOUNTING CONSIDERATIONS

When installed outside, the effect of wind and temperature can modify the directional characteristics of horn loudspeakers. This will be most noticeable when installed on the flat roof of a building in full sunlight and the following diagrams demonstrate how the sound will be affected.



It is important to maximize the benefit of prevailing winds, to use these to enhance the distance that sound will naturally travel. If not considered in positioning the loudspeakers, it could be that wind could reduce the distance that the dispersal sound will travel, blowing in the opposite direction to that which the loudspeakers are directed.

By knowing where the sun rises and the sun sets relative to the site positioning, SCARECROW engineers will be able to consider the possible flight timing of the problem birds and will use this information with all other points to achieve 'best practice' designs. To obtain a better understanding please refer to the illustrations about loudspeaker performance. Sun movement also has a relevance to possible solar powering of SCARECROW PROCESSORS.

CARE IN DESIGN

To reduce the adverse effects of sound reflections from flat, horizontal or near horizontal, surfaces, e.g., a factory pitched roof, loudspeakers should be mounted at least one metre above these pitched or flat surfaces.

Similarly, loudspeakers will not be positioned such that the sounds they reproduce are obtrusively reflected from adjacent flat vertical surfaces, causing echo, which could confuse the birds to be dispersed. The quantity of loudspeakers we plan for a site is dependent on ambient noise levels, site location, size and complexity; importantly we shall consider site proximity to residential housing and reducing the intrusion on other areas close by.

PLEASE NOTE:

Whilst the unique efficiency of SCARECROW bio-acoustic products is long established SCARECROW BIO-ACOUSTIC SYSTEMS LIMITED stress that they can only work effectively as part of an overall and planned programme of bird control. This will include total hygiene management and where applicable the use of operatives who have been professionally trained. Without limitation, SCARECROW BIO-ACOUSTIC SYSTEMS LIMITED will not accept liability for any consequences as a result of poor equipment maintenance, misuse, inappropriate use, lack of operative training, failure of due diligence or through lack of prior project consultation.