1. Screening process

In order to ensure the quality of the source catalogue derived from the SASS processing an automatic as well as a visual screening procedure was applied to the 1378 survey fields. Most (94 per cent) of the 18811 sources were confirmed by this screening process. The rest were flaged for various reasons which are listed and explained in the following:

Flag n: SASS flux determination affected by nearby sources
Definition:
This flag is set if within the SASS extraction radius a second source is found. The flag is usually set for both sources. If the count rate ratio of the sources is larger than a factor of 5, the flag is only given to the weaker source. If more than one additional source is found within the extraction radius the flag is given to all sources independent of their count rates.
consequences:
The fluxes determined by SASS may be in error.

Flag p: Possible problem with position determination
Definition:
The flag is set in the visual inspection procedure if the source is obviously not centered on the SASS position.
consequences:
The flag gives a warning of the reliability of the SASS source position and the source identifications based on that position. A broad band image with overlaid X-ray contours is available for inspection.

Flag e: Sources extended beyond SASS extraction radius
Definition:
These sources are obviously more extended than the SASS extraction radius. The count rate and the extraction radius were determined from a ring integration method. A broad band image with overlaid X-ray contours is available for inspection.
consequences:
The flag indicates that the given source parameters, count rate and extraction radius, were not determined by the SASS processing and that they were obtained in a reprocessing step based on a ring integration method. These newly calculated parameters are more reliable than the SASS values.

Flag d: Complex diffuse emission pattern
Definition:
Complex diffuse emission pattern on different scales. Examples are complex emission in spatially resolved galaxies, elongated emission regions or supernova remnants.
consequences:
The SASS parameters are highly unreliable (the SASS is optimized for point sources), or the original SASS processing had split the complex emission into individual sources. Whenever possible, an estimate for the mean source position and a source radius is given based on the ROSAT survey broad band image. We strongly ask the potential user to inspect the image whenever this flag is set.

Flag m: Sources missed by the SASS processing
Definition:
The visual inspection revealed the existence of sources which were missed by the detect algorithm. Their count rates from the ring integration method suggest the inclusion into the ROSAT All-Sky Survey Bright Source Catalogue.
consequences:
No SASS parameters are available for these sources and their basic source properties count rate, position, hardness ratio and extent are determined from the ring integration method.

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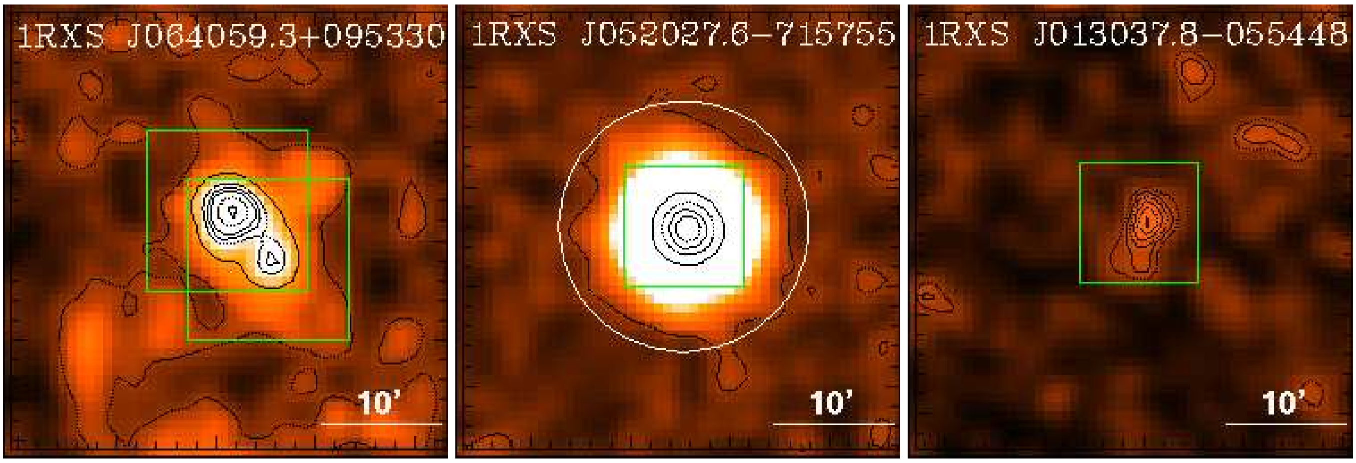

Fig. 1. Examples for sources with warning flags. The SASS extraction radius is marked by the green rectangles and the new extraction radius, when determined, is shown as the white circle around the source position. Left panel: SASS flux determination affected by nearby sources; middle panel: Sources extended beyond SASS extraction radius; right panel: Possible problem with position determination.

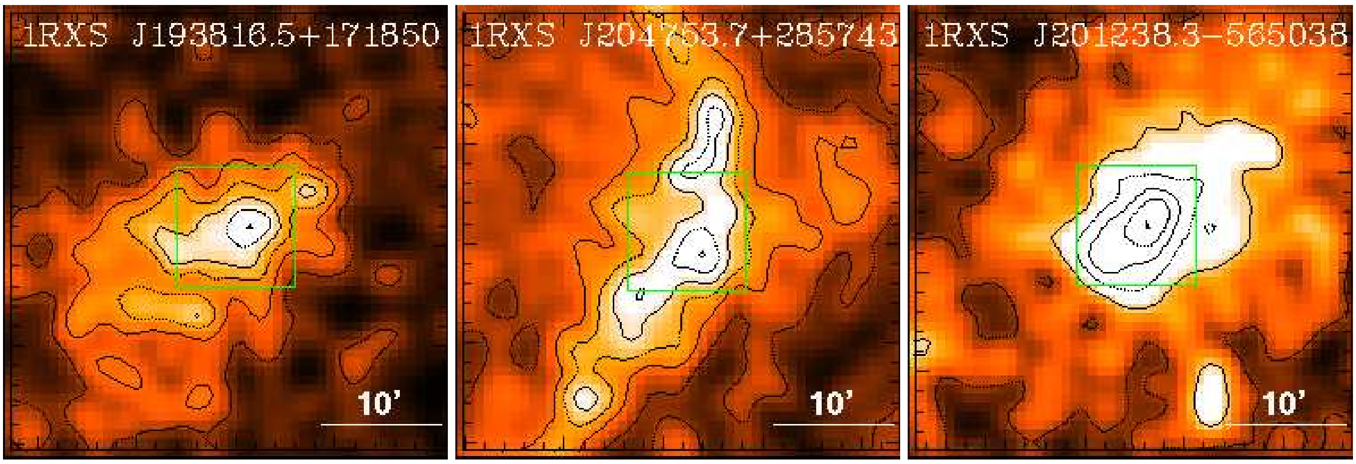

Fig. 2. Examples for sources flaged as: Complex diffuse emission pattern.