

KIC 005263749

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005263749-01	OBS	No	3.726907	131.562499	22.1	16.787	9.1	7.3	1.82	6547	1.01	1975.43
005263749-03	OBS	No	3.726499	134.574149	79.8	44.718	11.4	14.6	1.82	6547	1.70	1975.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005263749-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
005263749-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

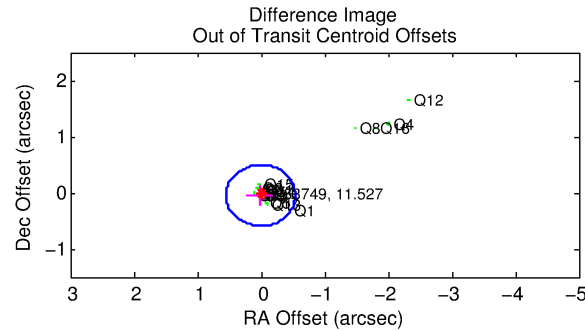
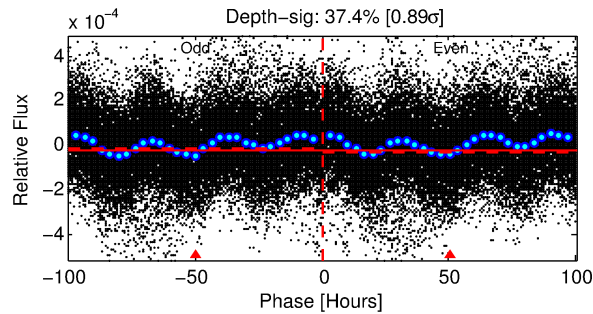
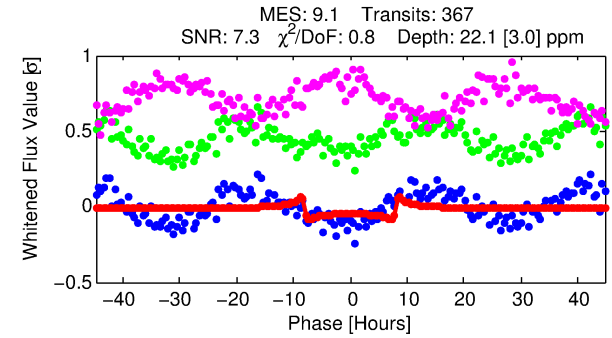
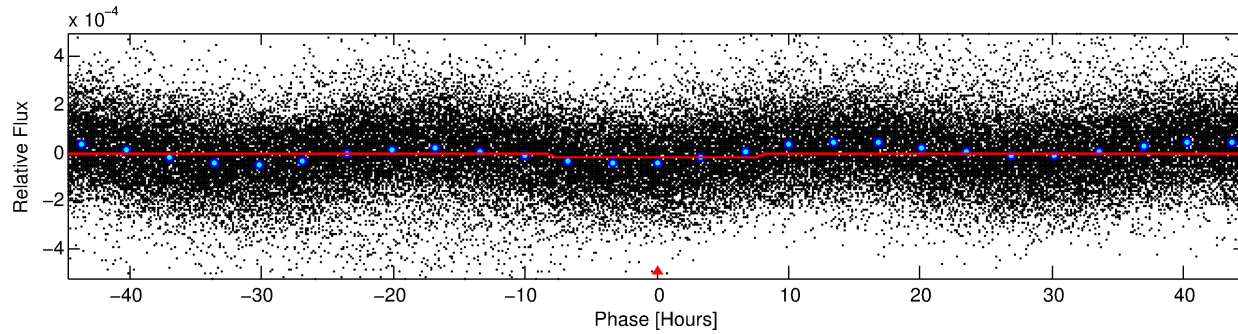
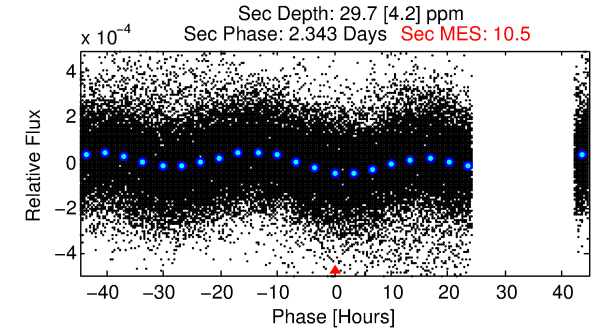
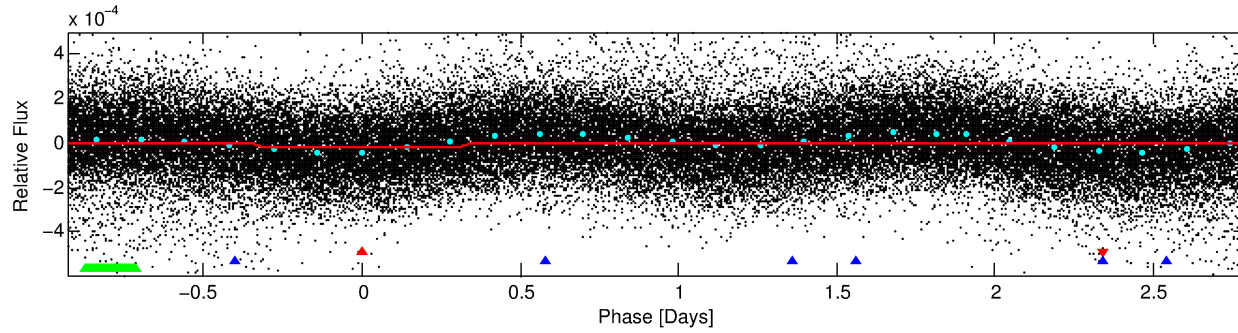
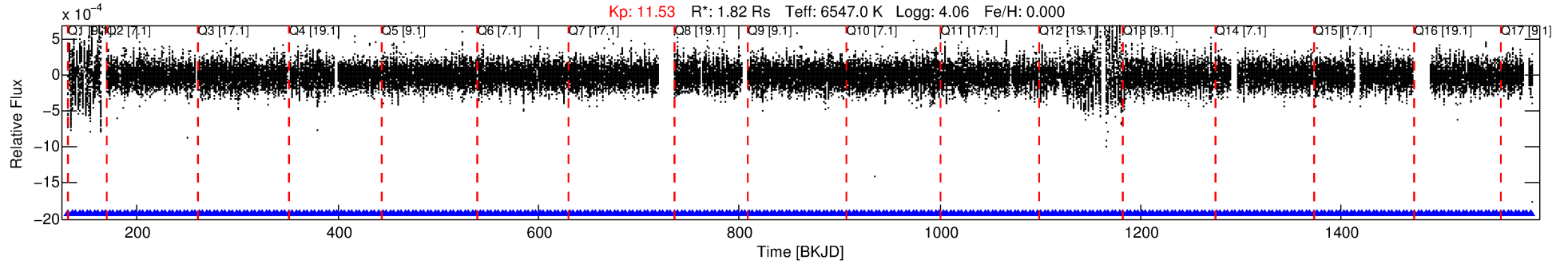
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005263749-01

No Significant Match Found

DV One-Page Summary

KIC: 5263749 Candidate: 1 of 3 Period: 3.727 d



DV Fit Results:

Period = 3.72691 [0.00004] d
Epoch = 131.5625 [0.0069] BKJD
Rp/R* = 0.0051 [0.0005]
a/R* = 1.19 [0.15]
b = 0.91 [0.08]
Seff = 1975.43 [571.43]
Teff = 1700 [123] K
Rp = 1.01 [0.24] Re
a = 0.0525 [0.0100] AU
Ag = 44.38 [16.79] [2.58σ]
Teffp = 6784 [432] K [11.33σ]

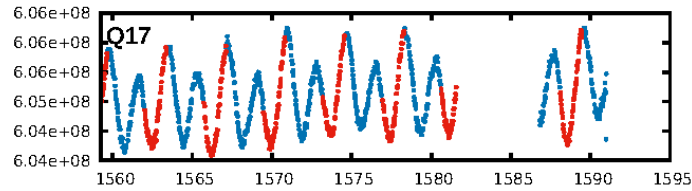
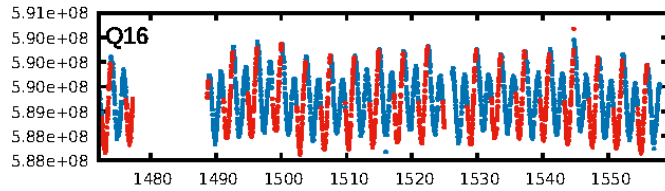
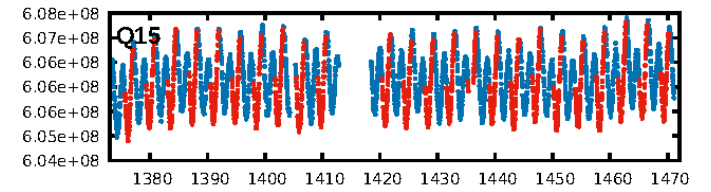
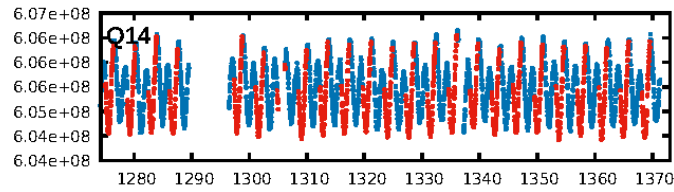
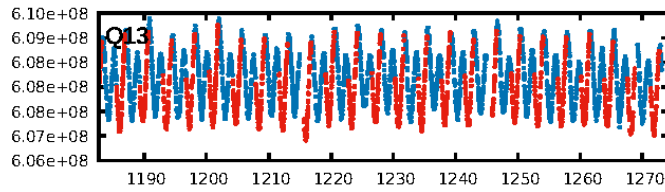
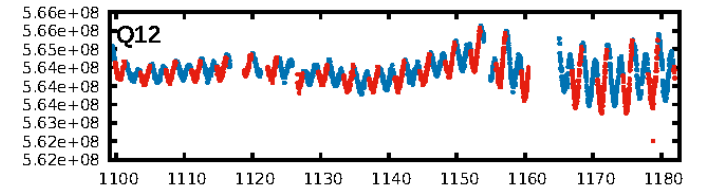
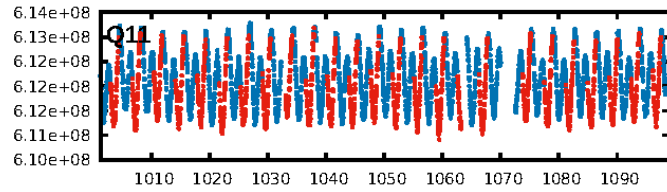
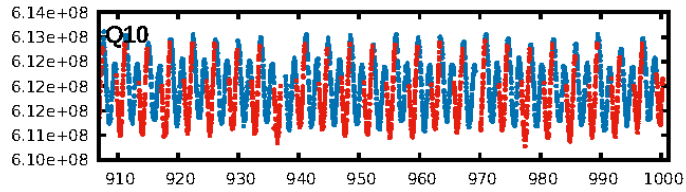
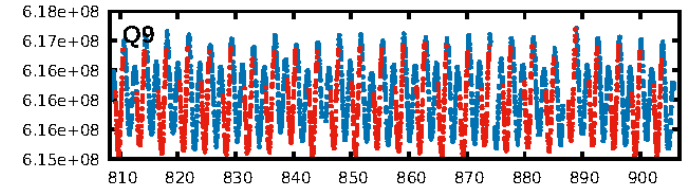
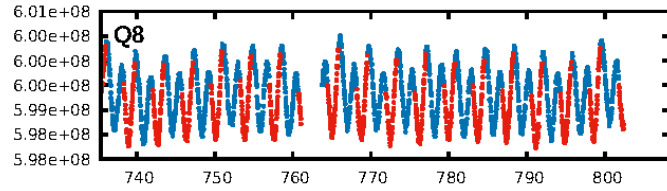
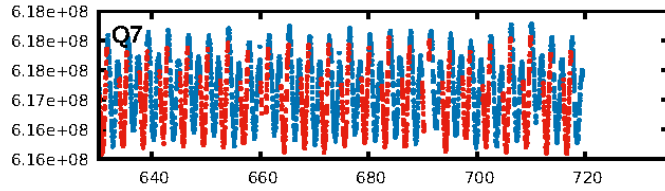
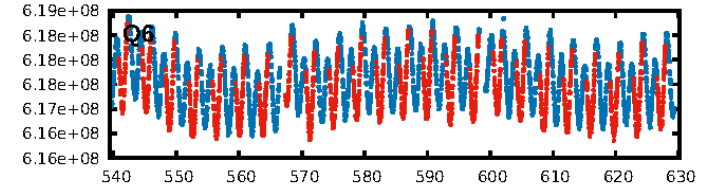
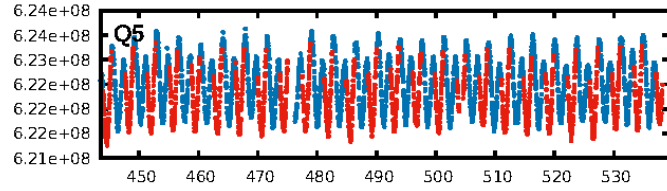
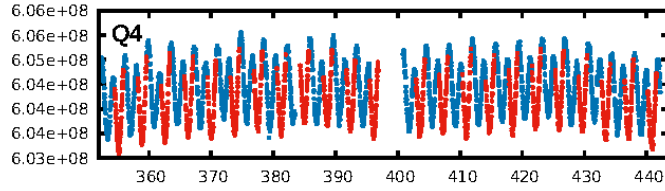
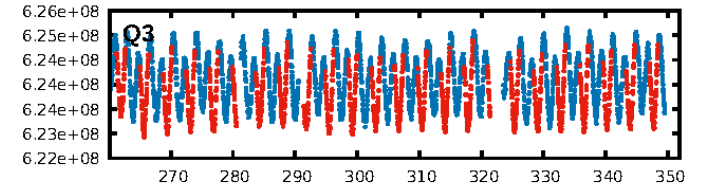
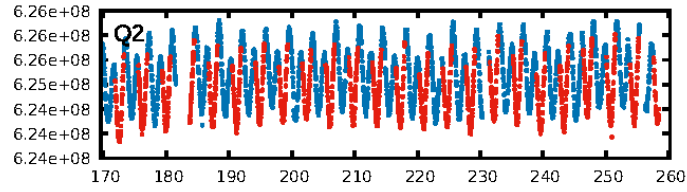
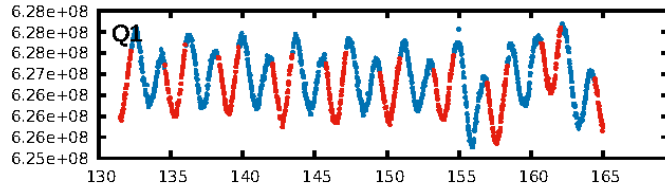
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [340.16σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [349/349]
GhostDiagnostic-chr: 1.708
Centroid-sig: 27.1%
Centroid-so: 0.462 arcsec [0.88σ]
OotOffset-rm: 0.050 arcsec [0.28σ]
KicOffset-rm: 0.173 arcsec [1.82σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

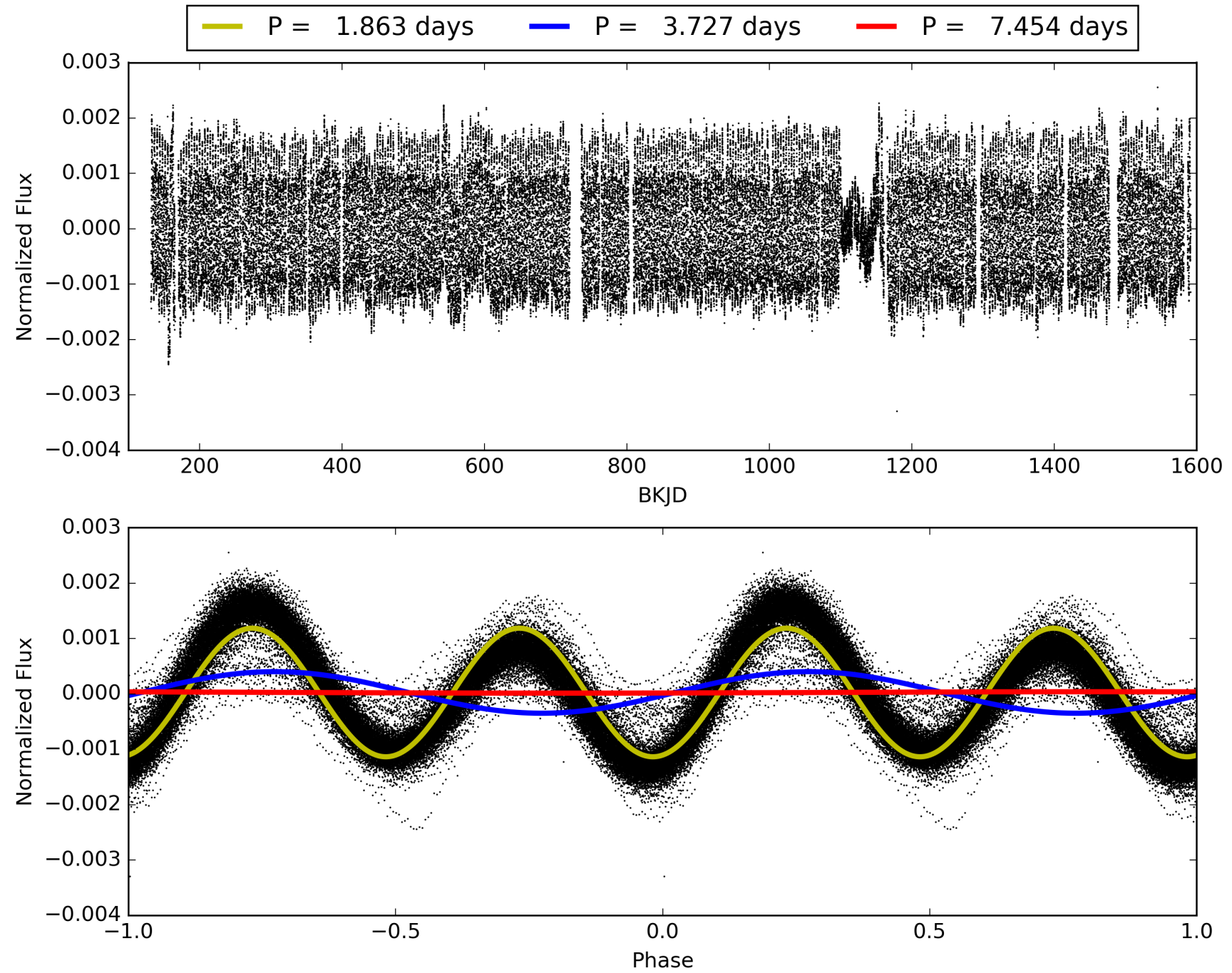
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005263749-01, PDC Light Curves

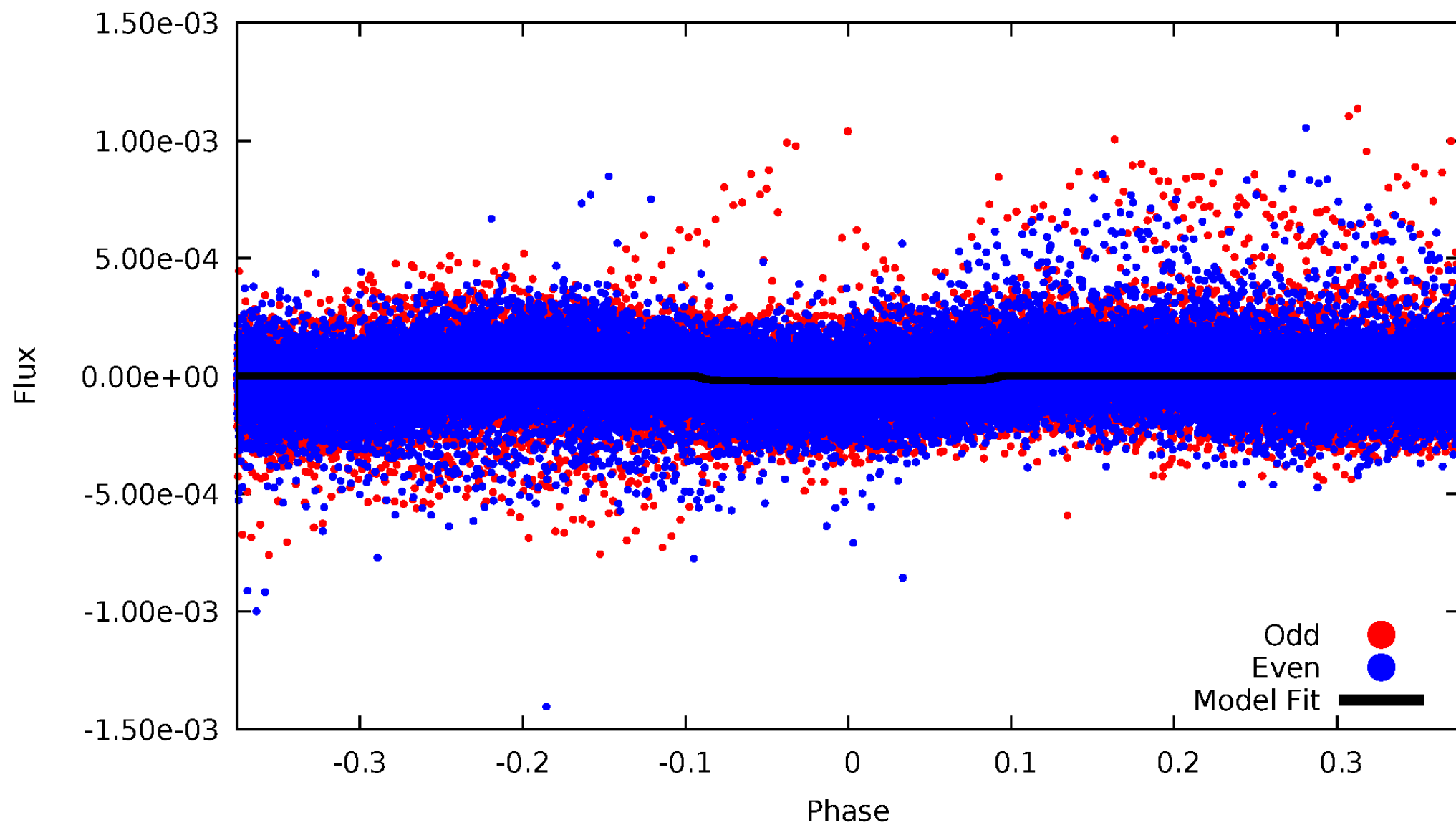


TCE 005263749-01



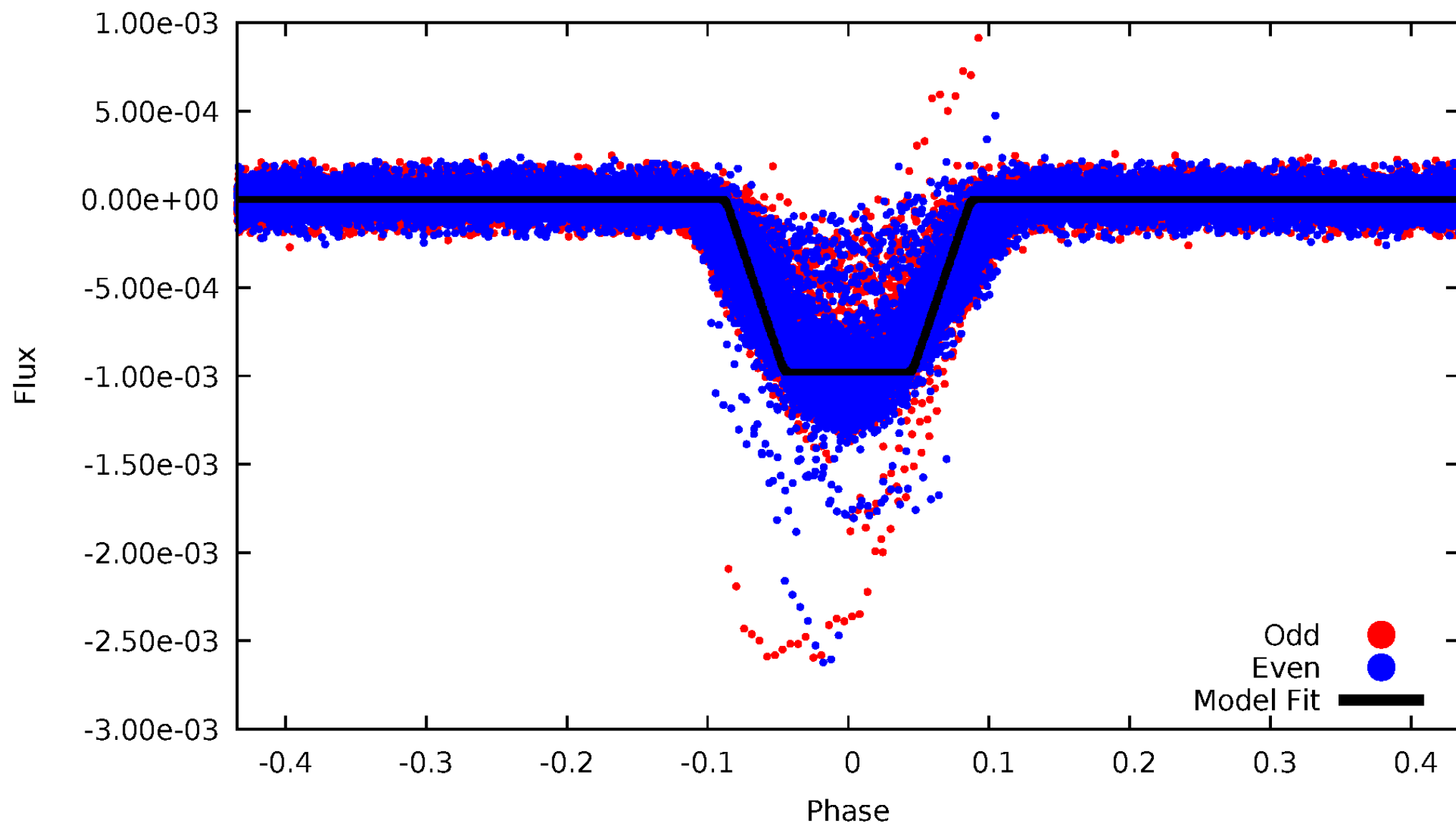
DV Odd/Even

TCE 005263749-01

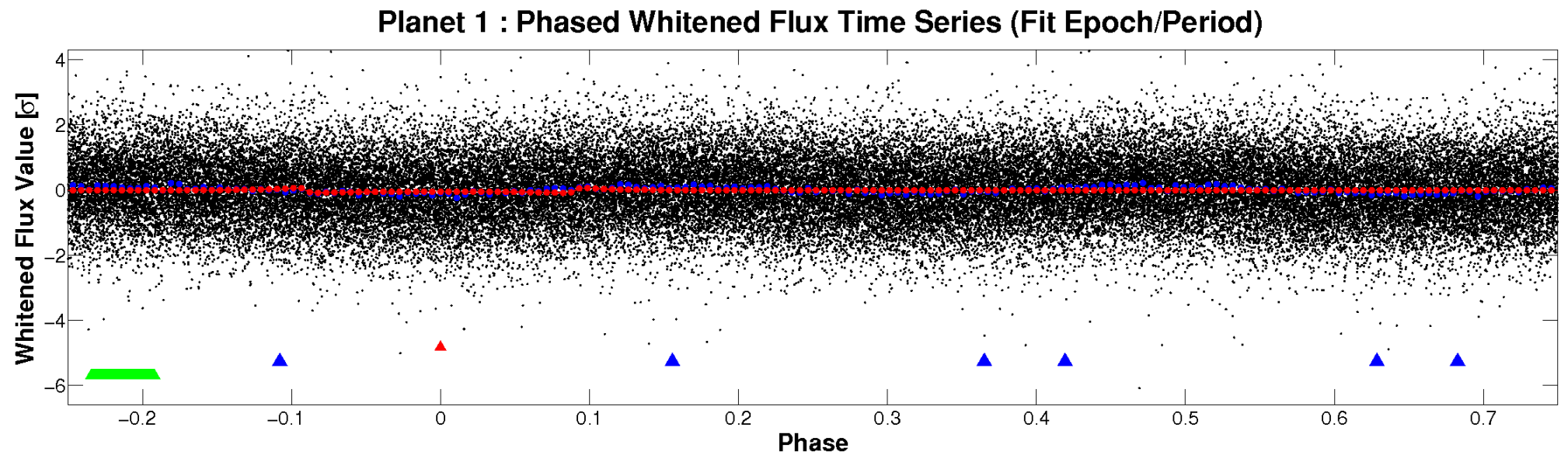
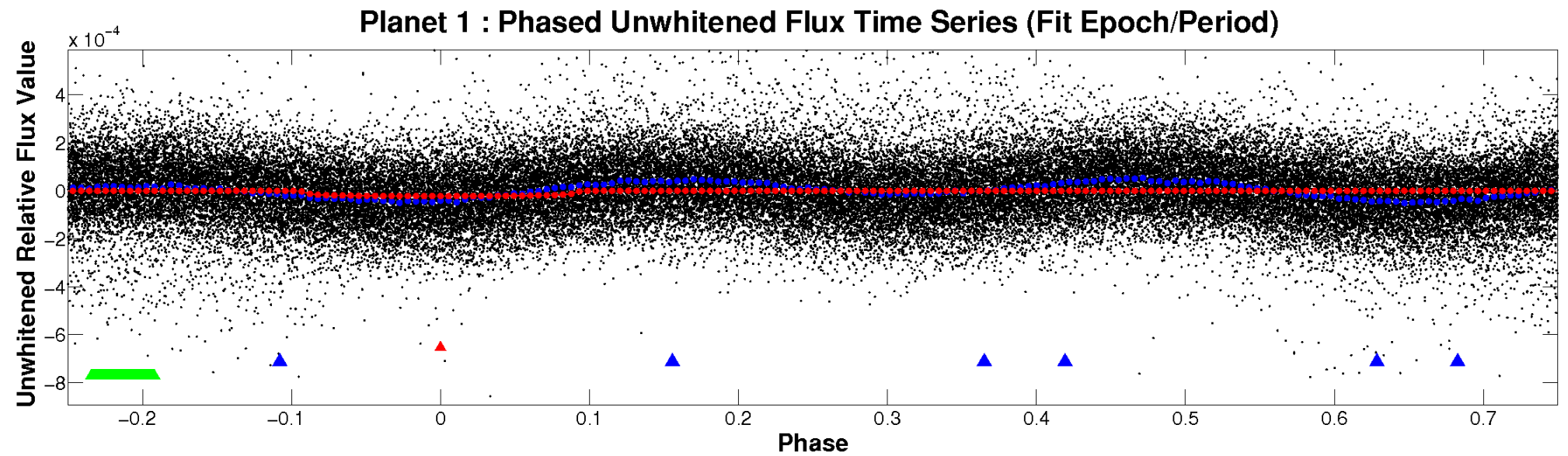


ALT Odd/Even

TCE 005263749-01

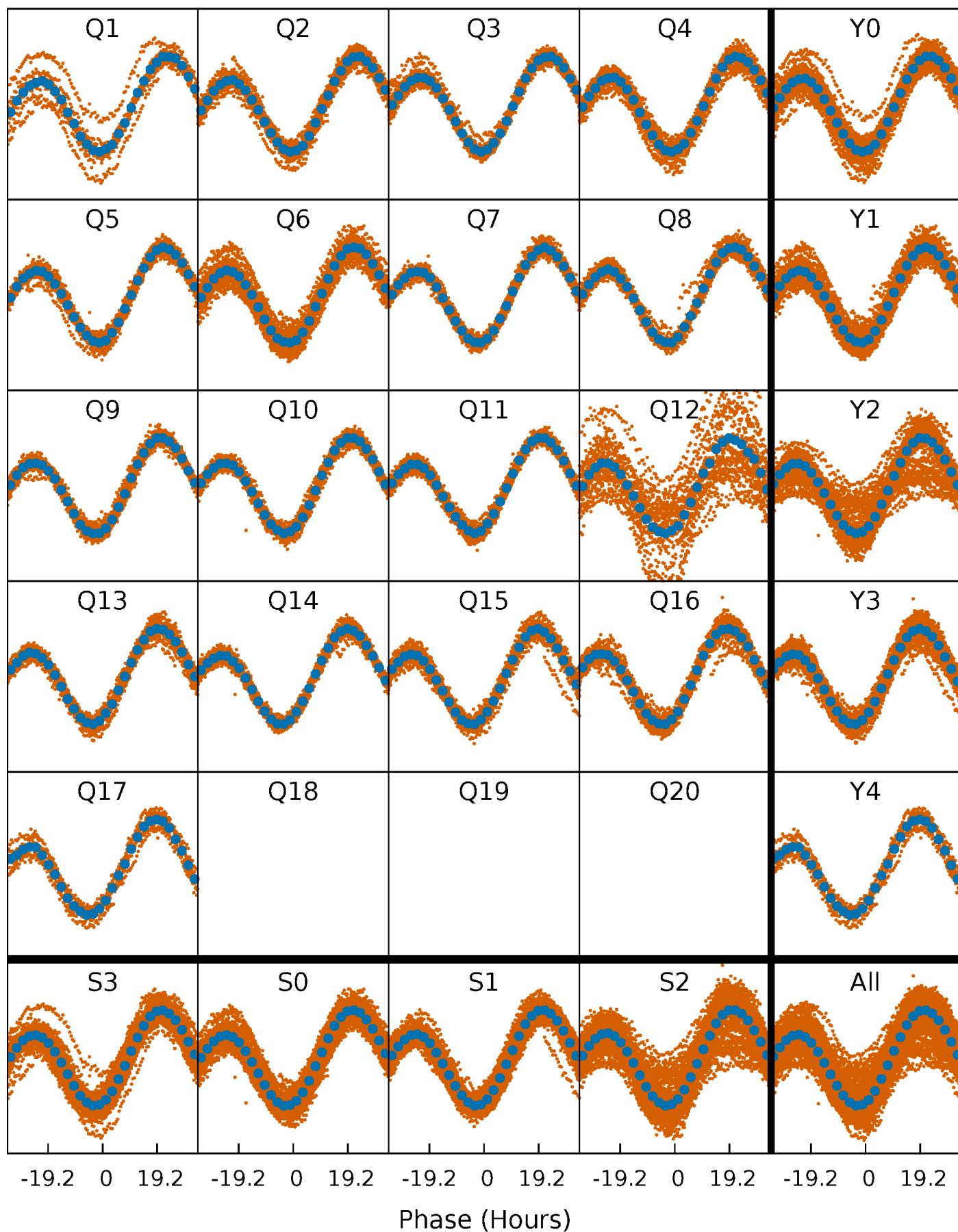


Non-Whitened Vs. Whitened Light Curve



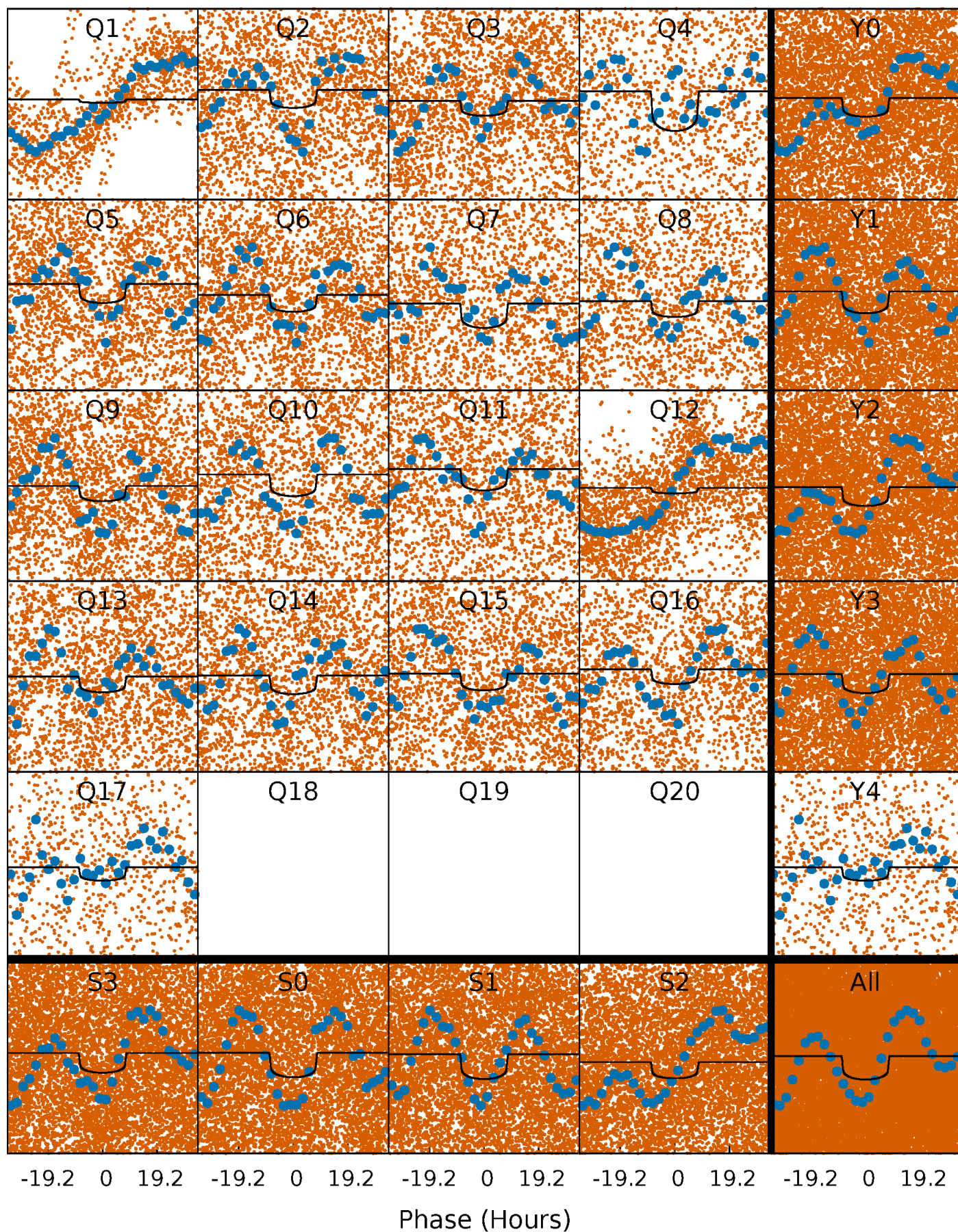
PDC Quarter-Phased Transit Curves

TCE 005263749-01 P= 3.726907 Days $T_0=131.562499$ (BKJD)



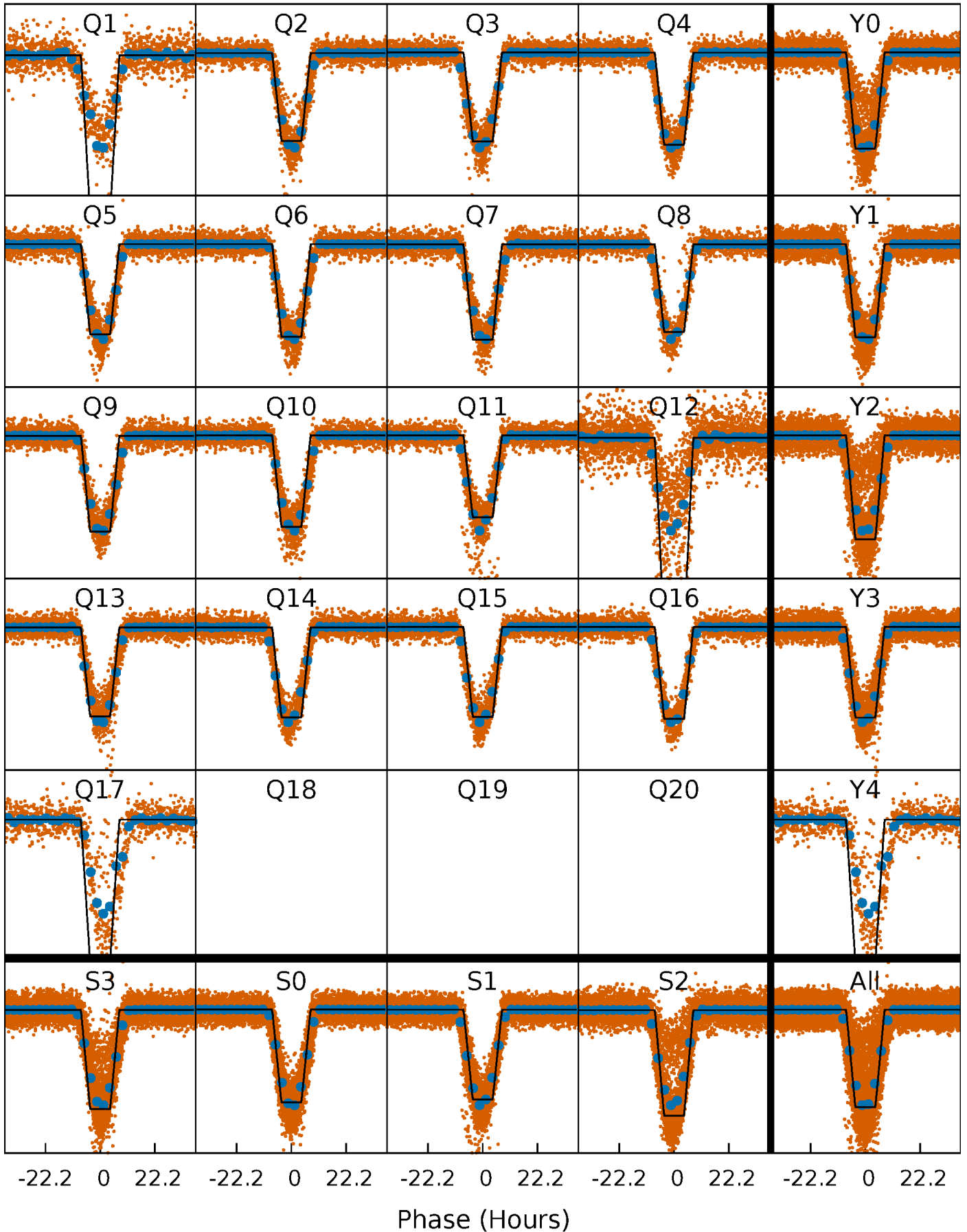
DV Quarter-Phased Transit Curves

TCE 005263749-01 P= 3.726907 Days $T_0=131.562499$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

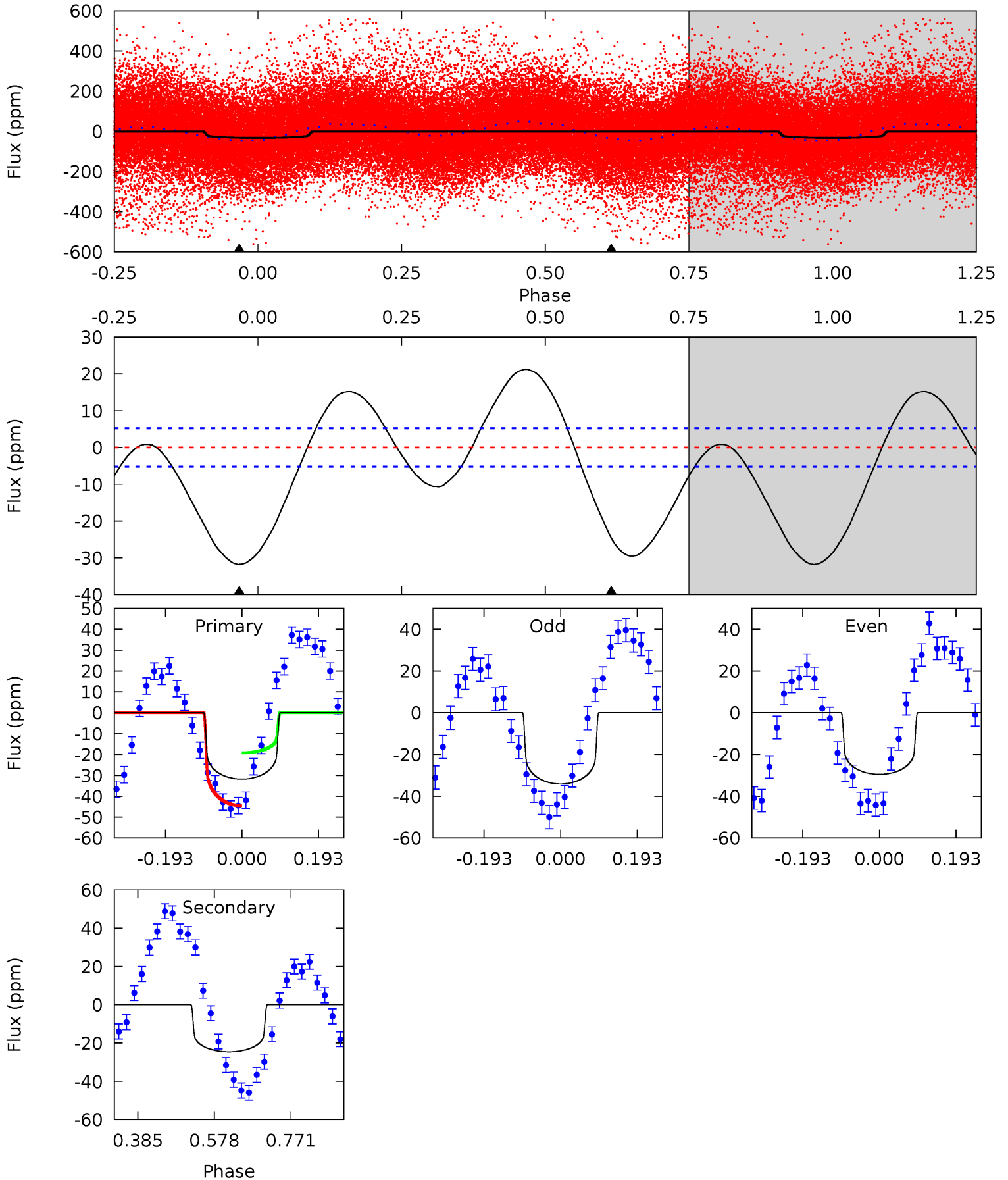
TCE 005263749-01 P= 3.726543 Days $T_0=131.611359$ (BKJD)



DV Model-Shift Uniqueness Test

005263749-01, P = 3.726907 Days, E = 127.835592 Days

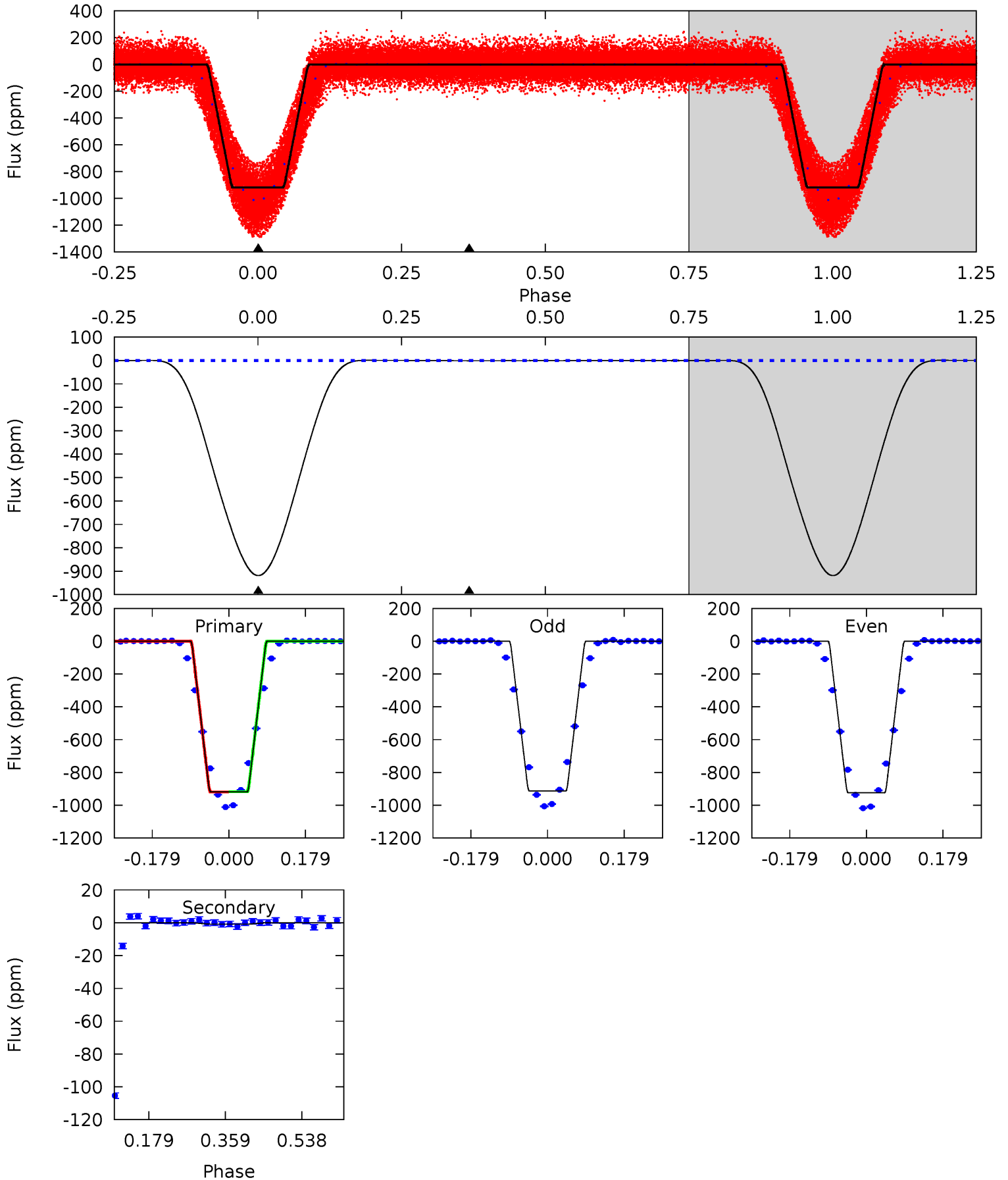
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.9	20.8	0	0	4.43	1.30	7.41	26.9	26.9	20.8	20.8	1.96	2.09	0.40	11.0



Alt Model-Shift Uniqueness Test

005263749-01, P = 3.726543 Days, E = 127.884816 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1549	1.46	0	0	4.44	1.34	0.61	1549	1549	1.46	1.46	9.36	0.99	0.00	2.24



Stellar Parameters For KIC 005263749

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6547^{+85}_{-78}	$4.061^{+0.159}_{-0.116}$	$0.000^{+0.150}_{-0.200}$	$1.818^{+0.363}_{-0.399}$	$1.391^{+0.123}_{-0.135}$	$0.326^{+0.272}_{-0.129}$
	+1%/-1%	+4%/-3%	+inf%/-inf%	+20%/-22%	+9%/-10%	+83%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005263749-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-25 ± 1	$0.99^{+0.15}_{-0.14}$	2365^{+118}_{-121}	6479^{+383}_{-338}	39^{+13}_{-10}
Alt.	-1 ± 1	$6.19^{+0.69}_{-0.67}$	2377^{+113}_{-129}	-2678^{+92}_{-78}	$0.033^{+0.027}_{-0.023}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

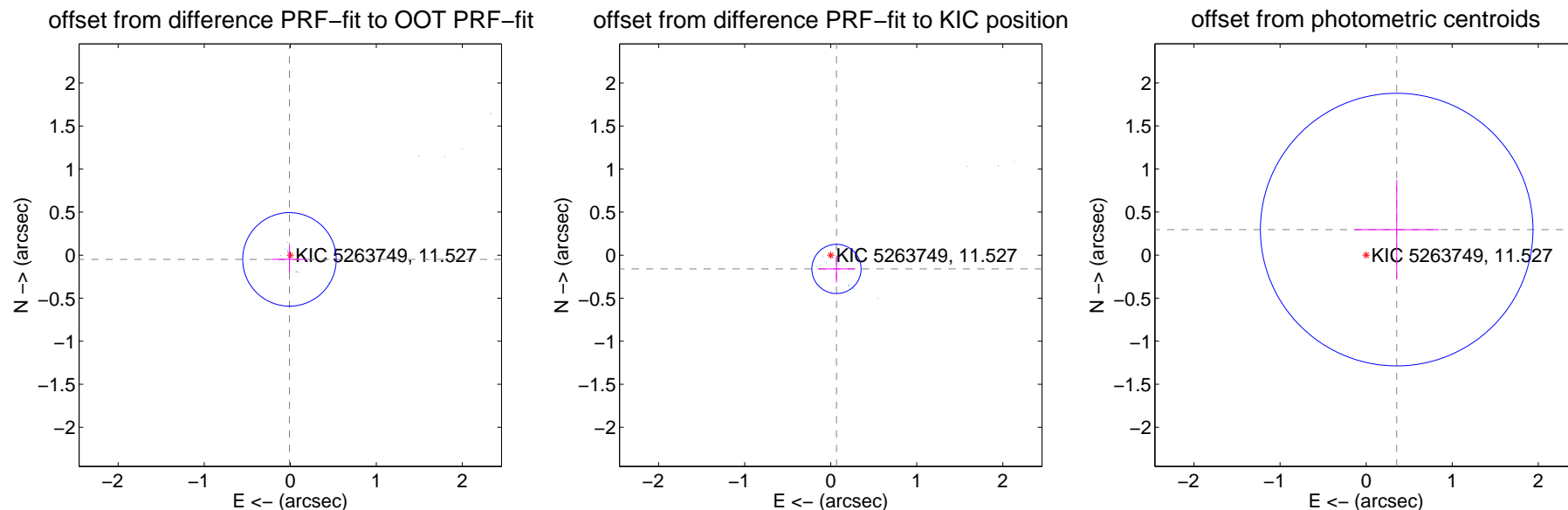
DV Centroid Data

Supplemental centroid analysis for 005263749-01. **Kepler magnitude: 11.53.** Transit SNR 7.29

There are 17 quarters with good PRF difference image offsets

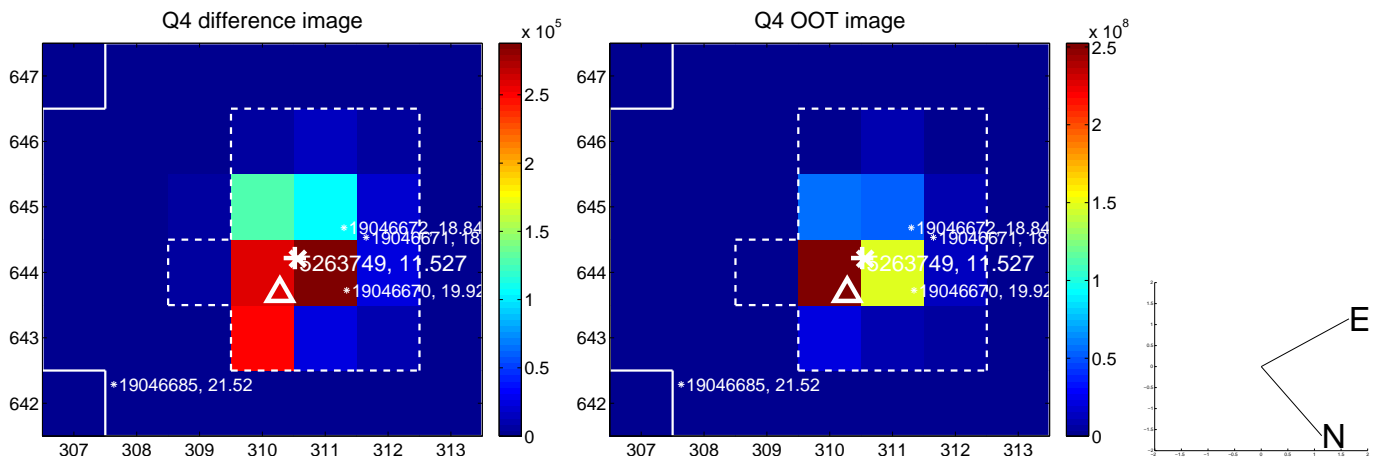
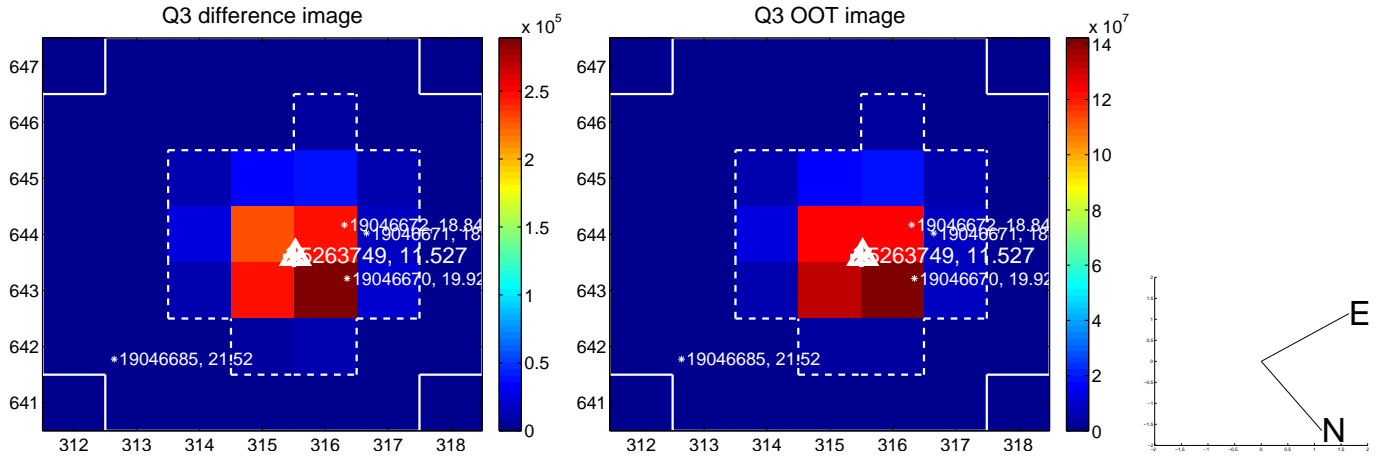
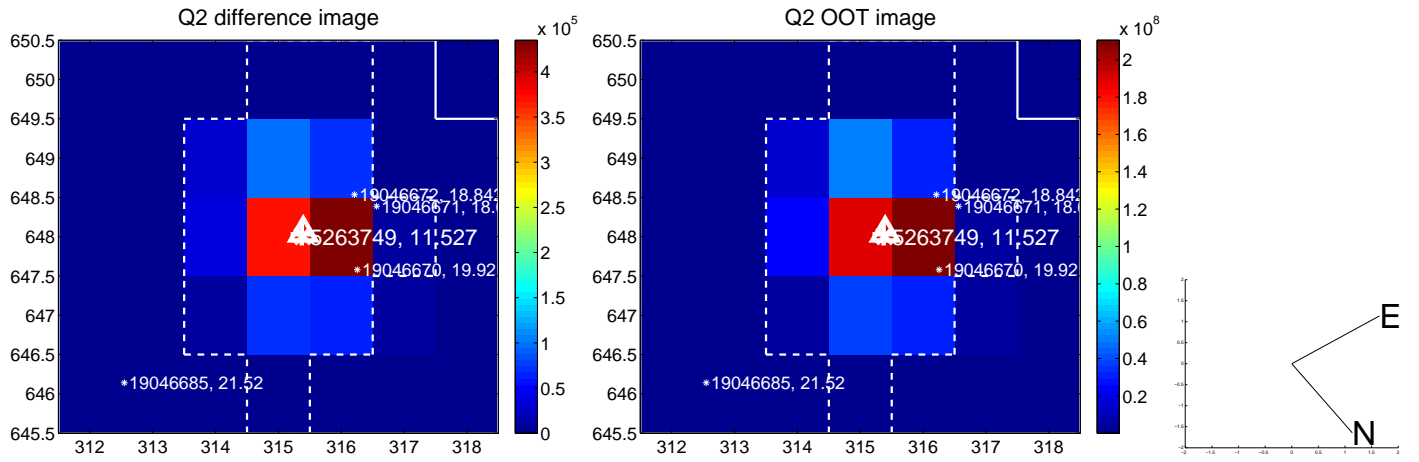
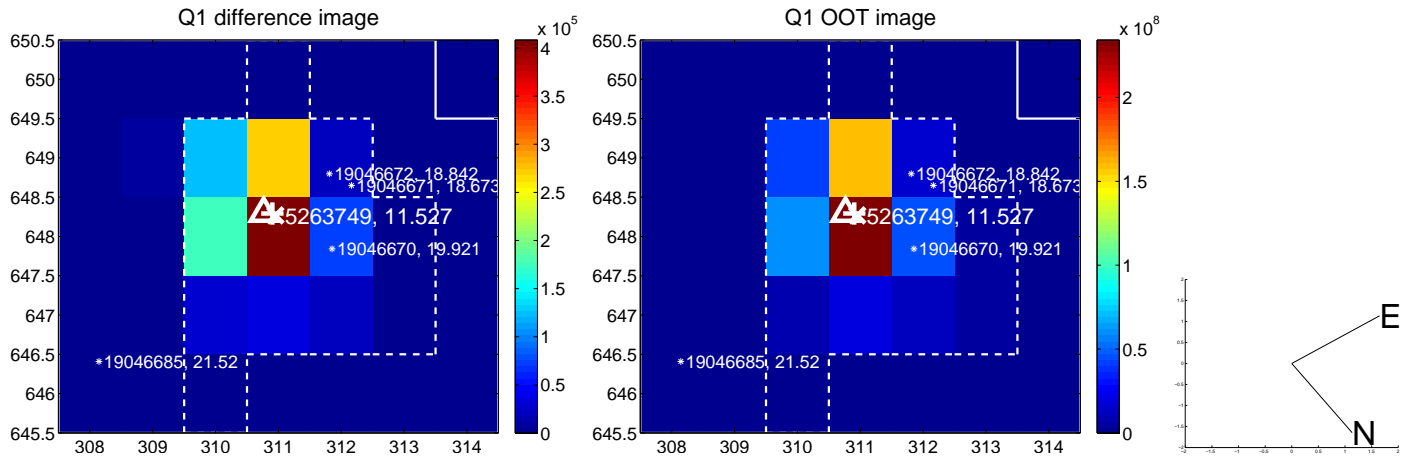
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.050 ± 0.181	0.28	0.009 ± 0.205	-0.049 ± 0.152
PRF-fit source offset from KIC position	0.173 ± 0.095	1.82	-0.067 ± 0.215	-0.160 ± 0.156
photometric centroid source offset	0.46 ± 0.53	0.88	-0.36 ± 0.49	0.30 ± 0.58

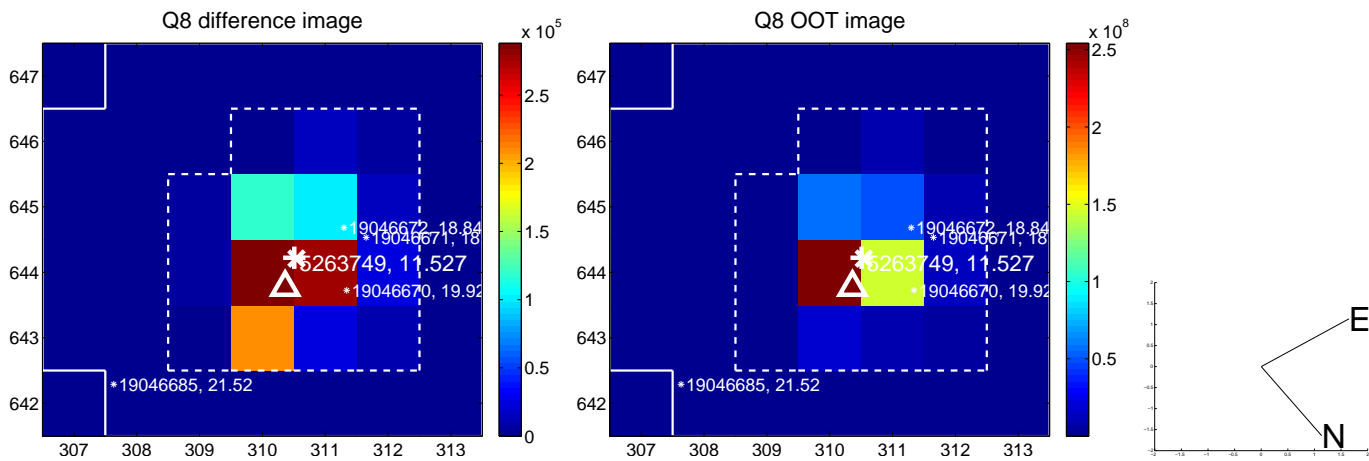
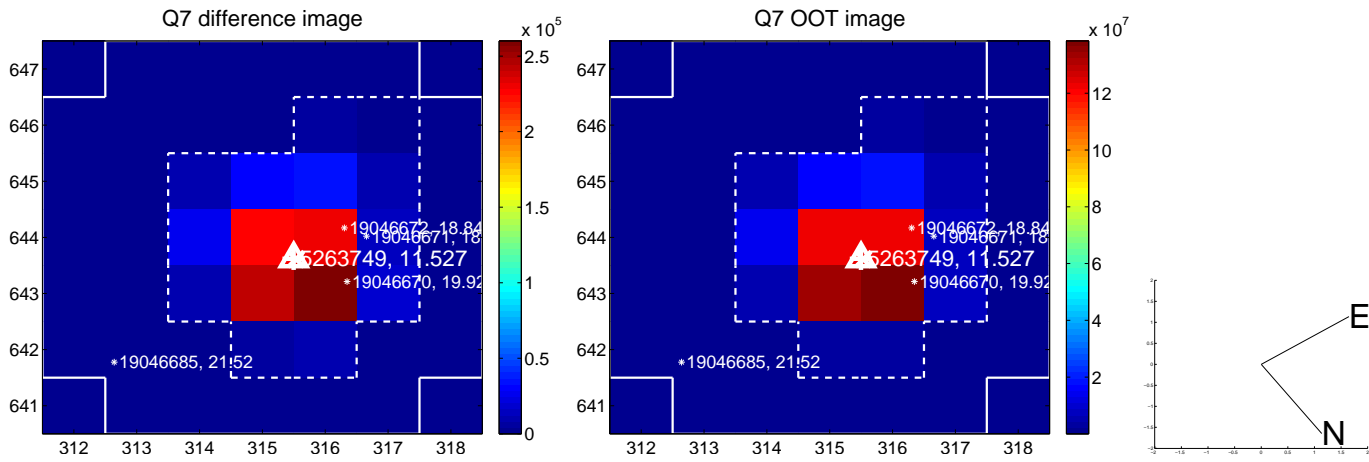
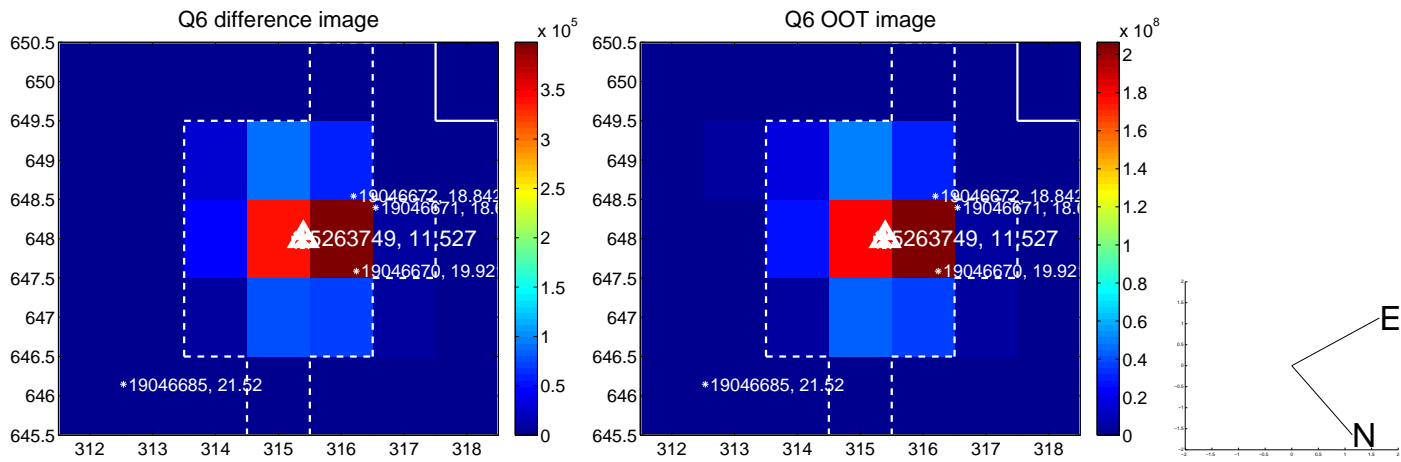
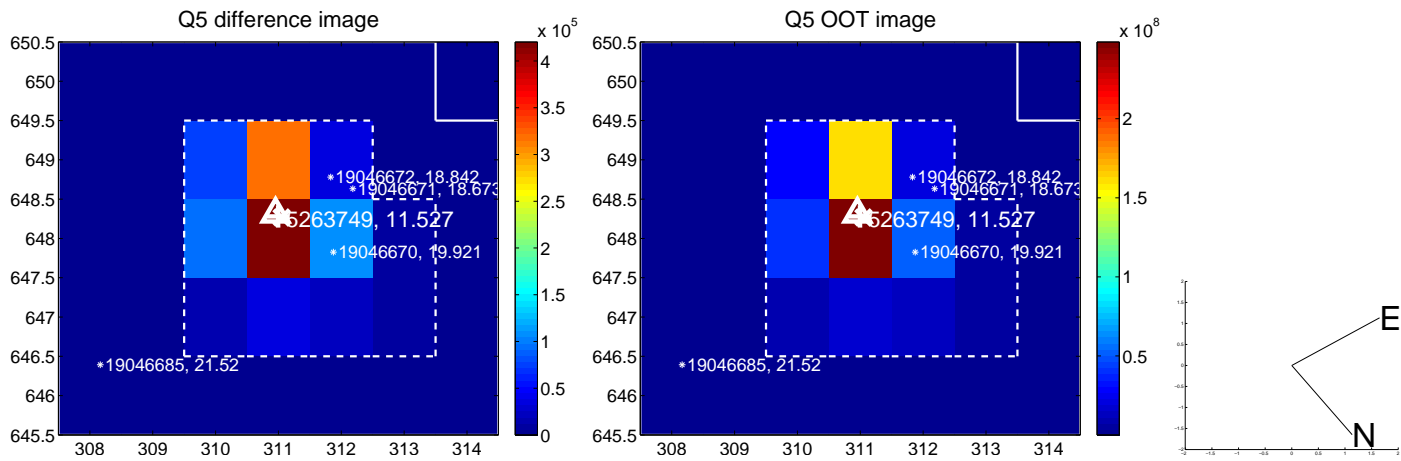


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

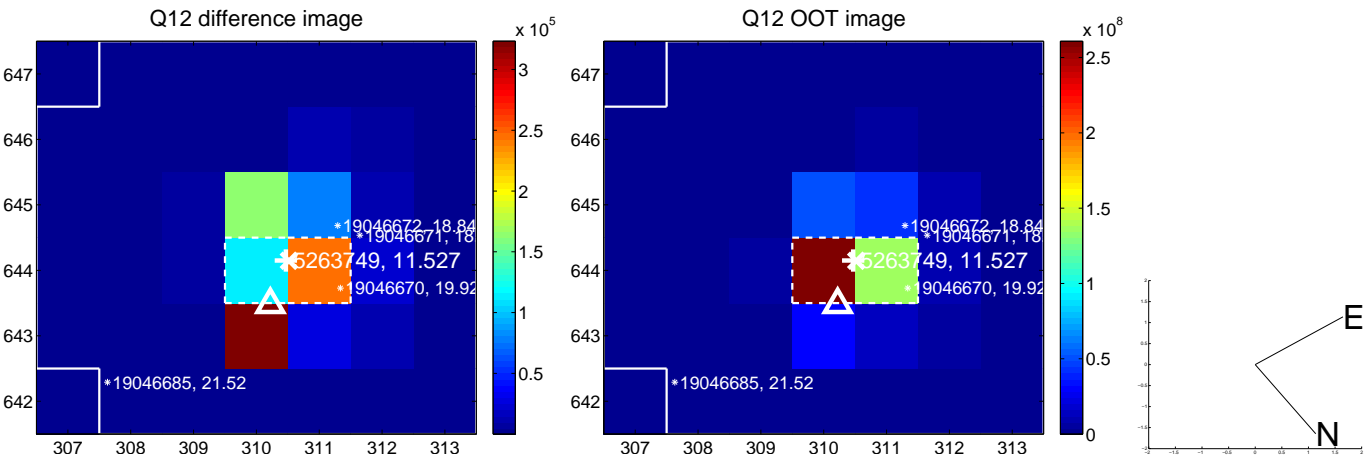
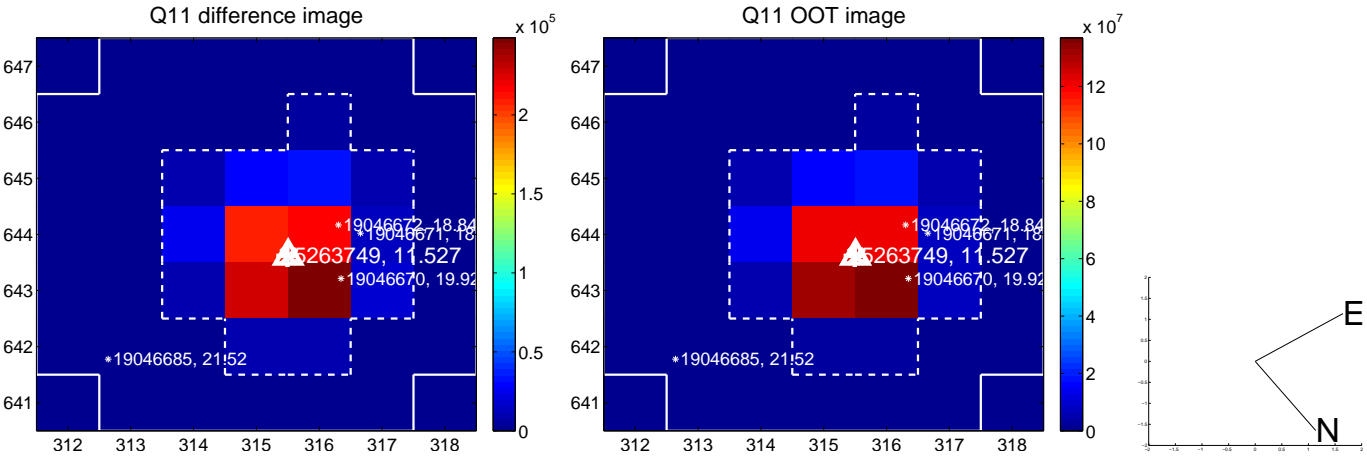
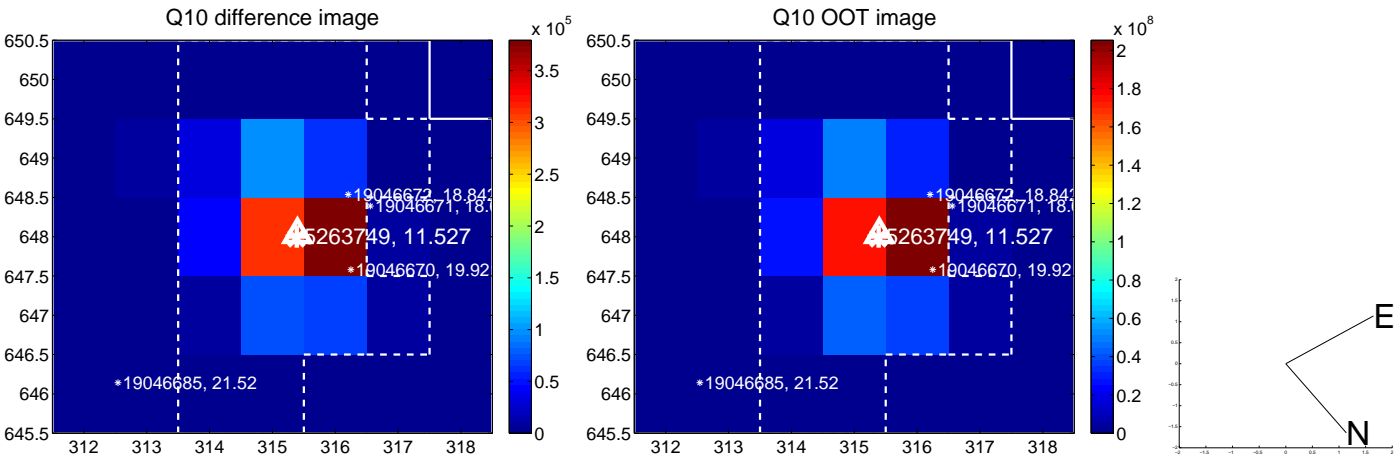
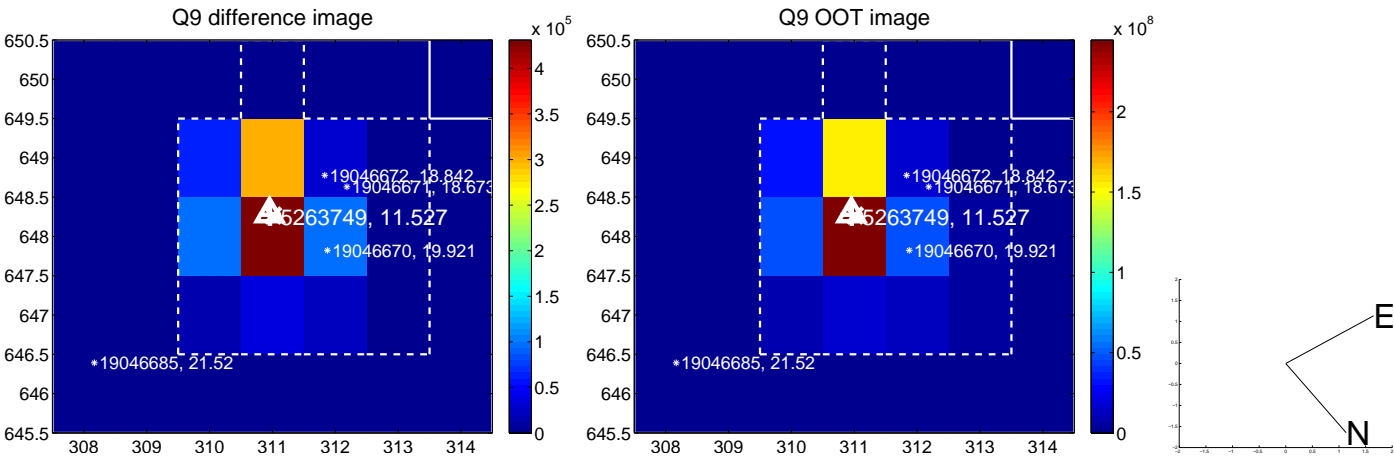
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



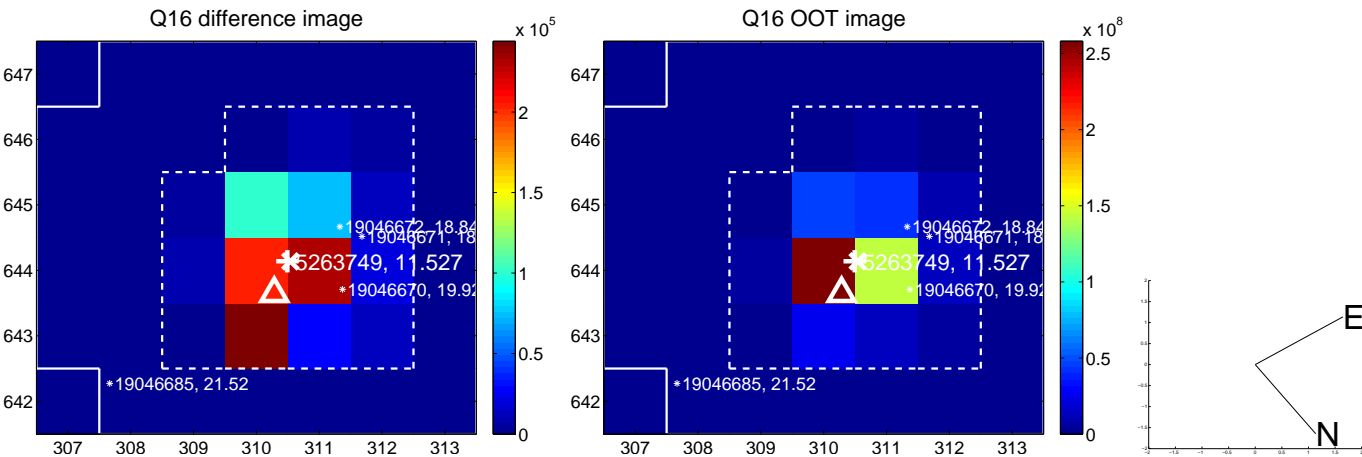
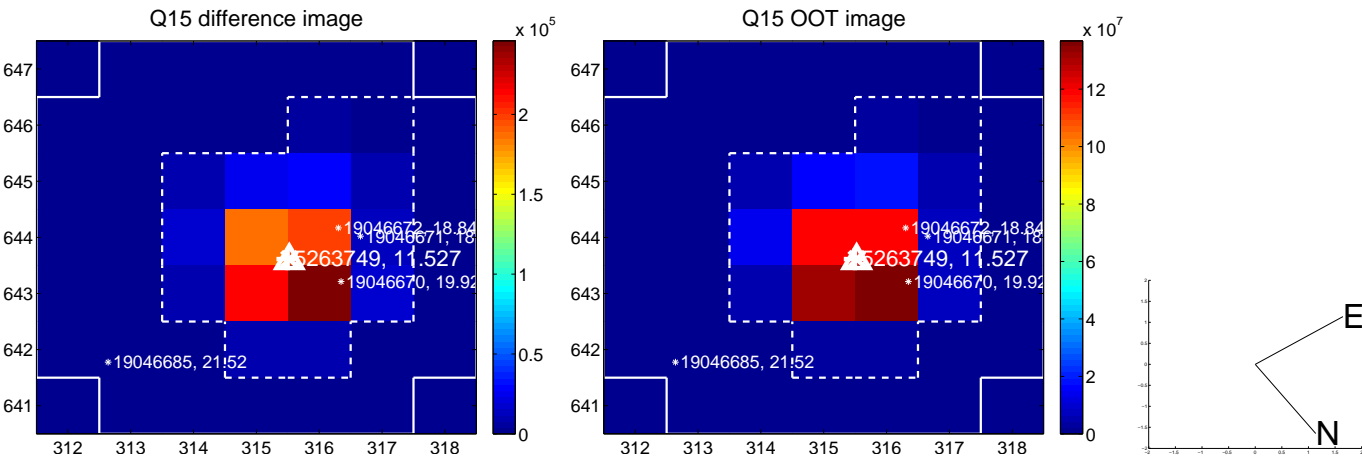
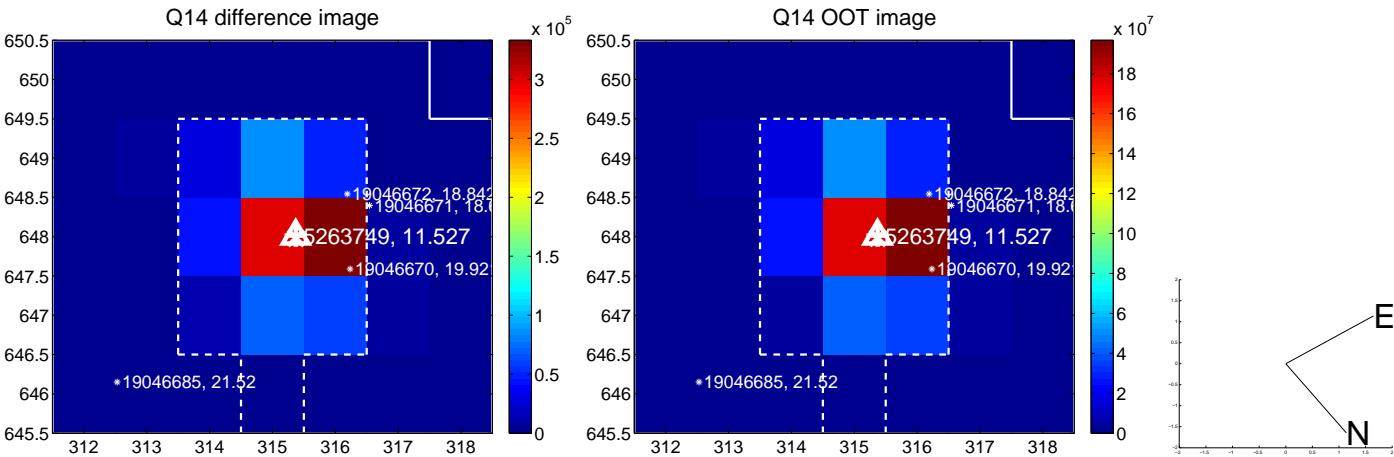
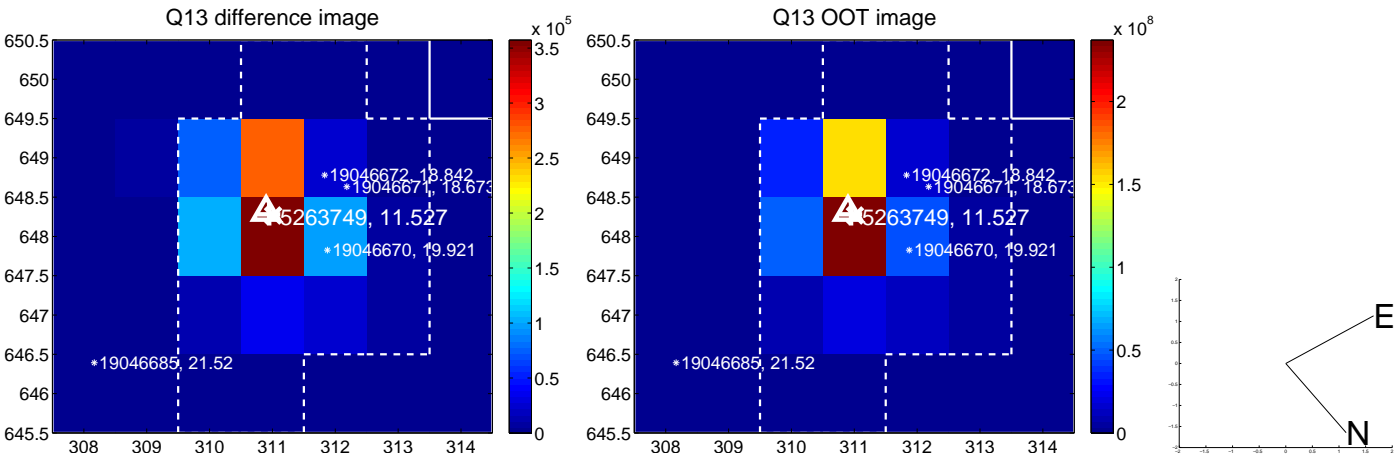
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



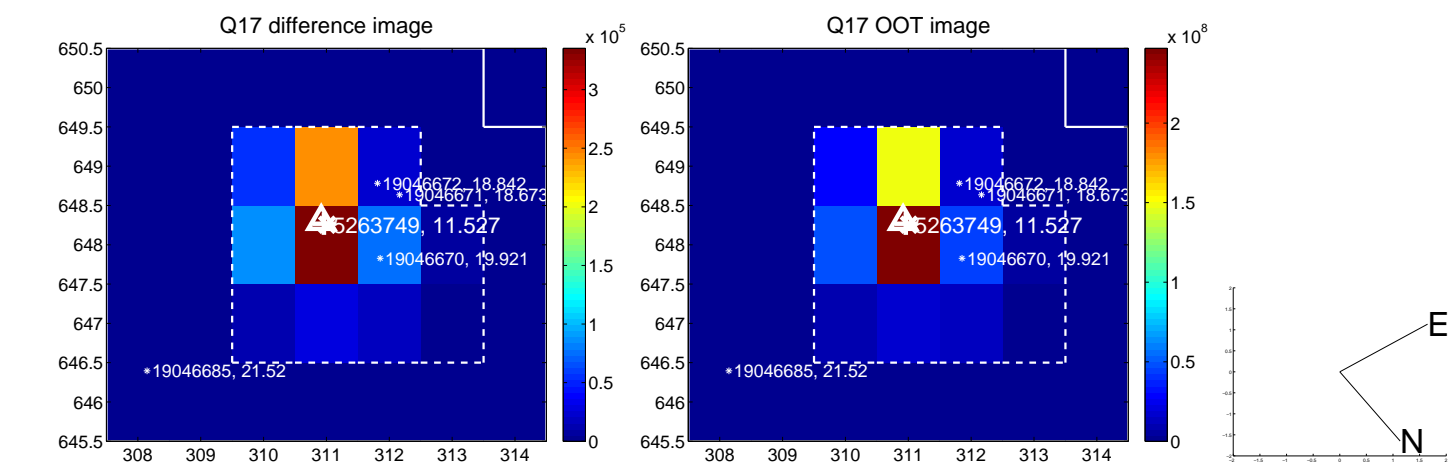
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



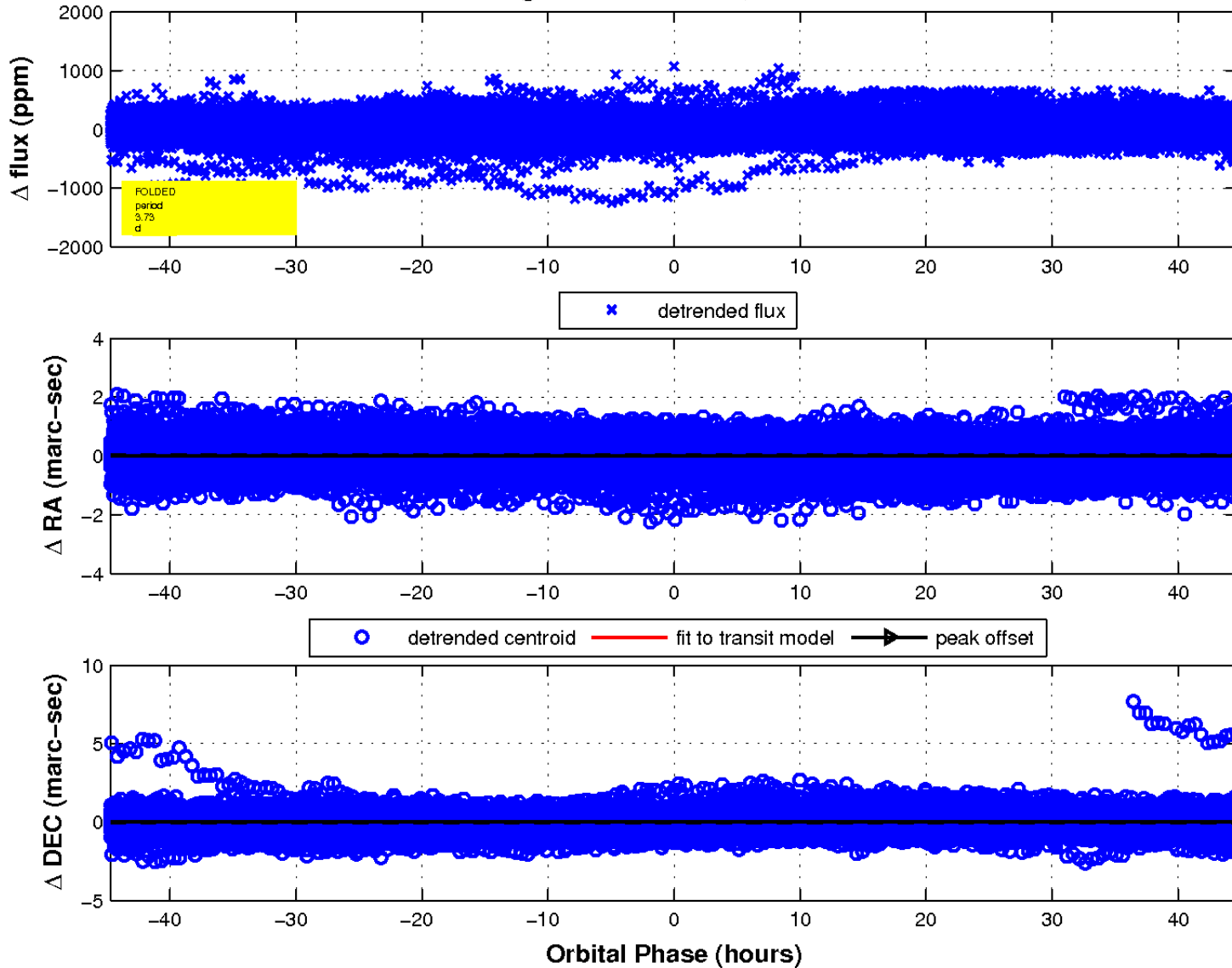
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

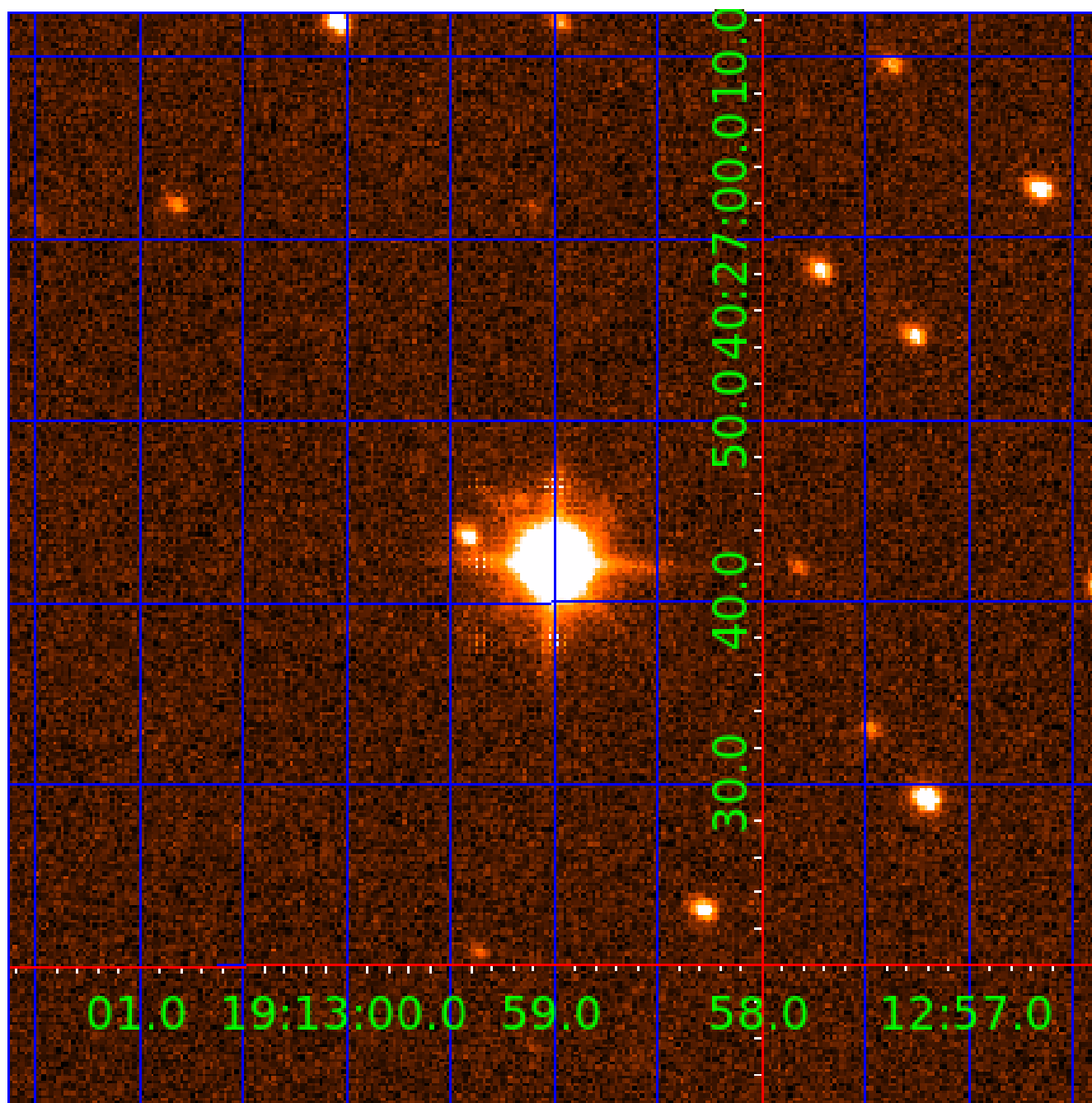


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 005263749

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005263749-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
005263749-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—SWEET_NTL—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

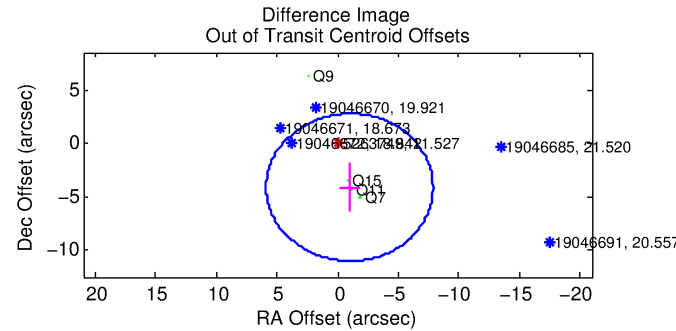
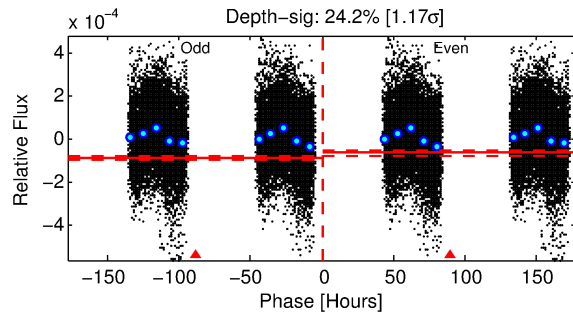
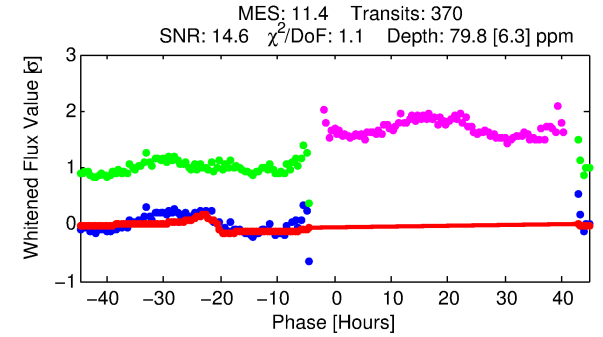
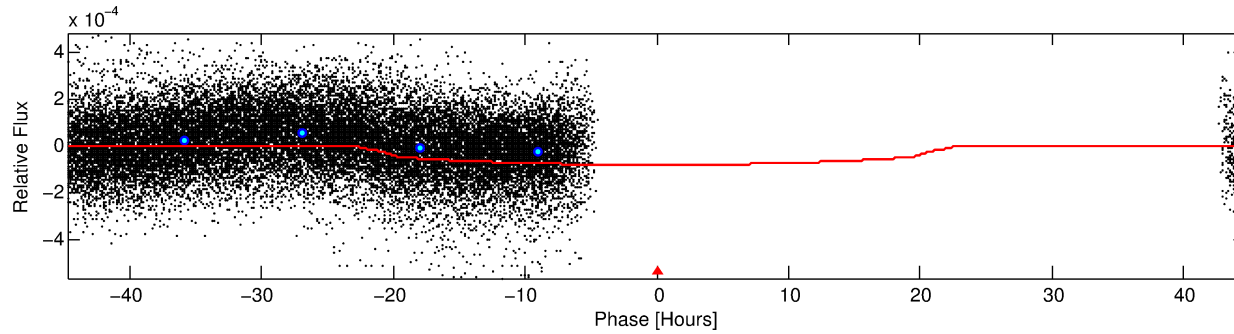
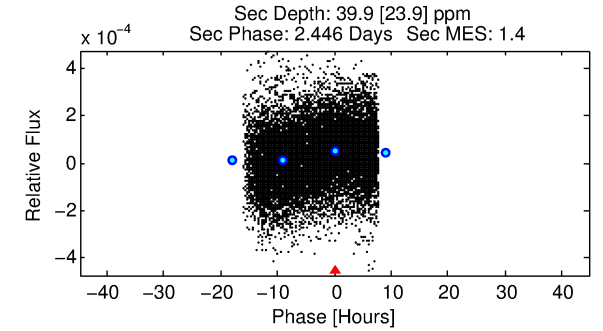
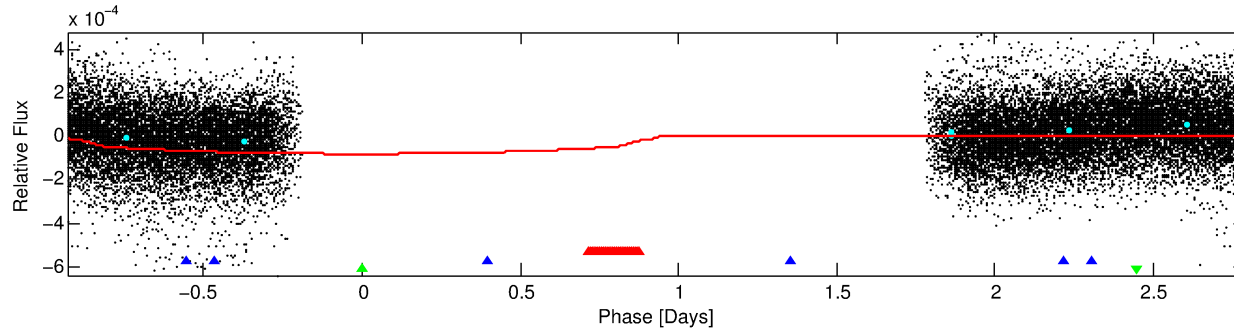
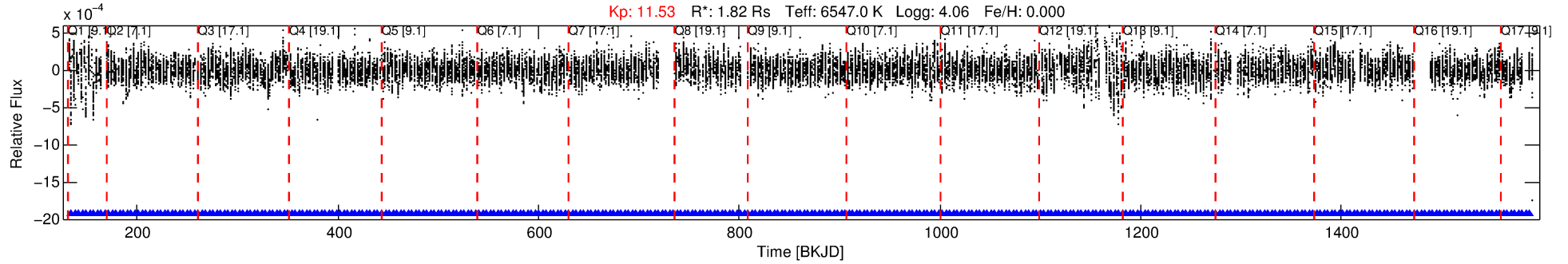
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005263749-03

No Significant Match Found

DV One-Page Summary

KIC: 5263749 Candidate: 3 of 3 Period: 3.726 d



DV Fit Results:

Period = 3.72650 [0.00005] d
Epoch = 134.5741 [0.0099] BKJD
Rp/R* = 0.0085 [0.0004]
a/R* = 1.00 [0.00]
b = 0.58 [0.17]
Seff = 1975.72 [571.52]
Teff = 1700 [123] K
Rp = 1.70 [0.38] Re
a = 0.0525 [0.0100] AU
Ag = 21.04 [14.07] [1.42σ]
Teffp = 5629 [855] K [4.55σ]

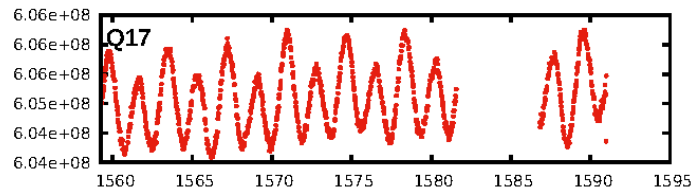
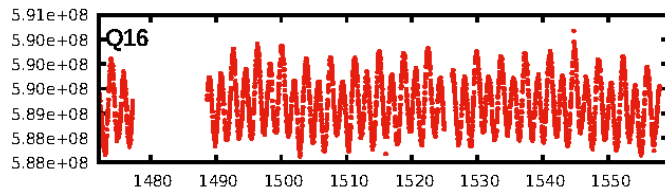
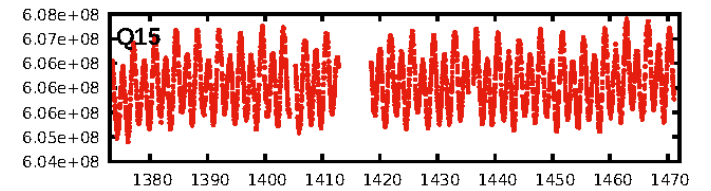
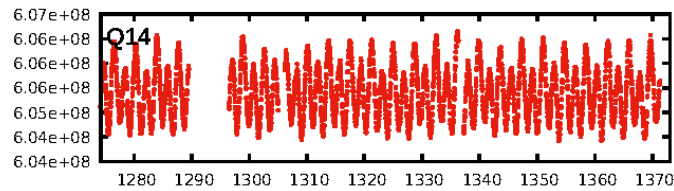
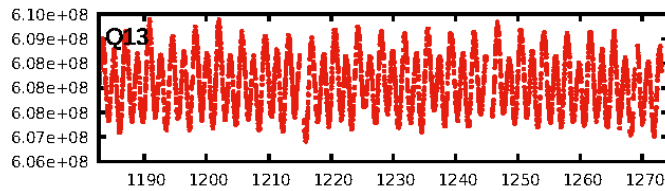
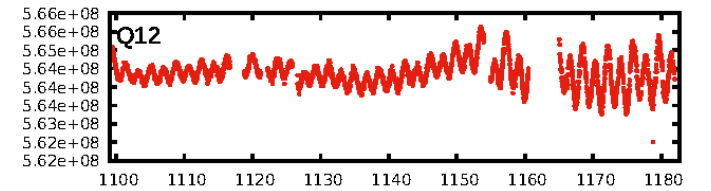
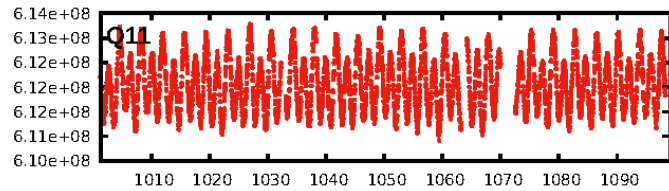
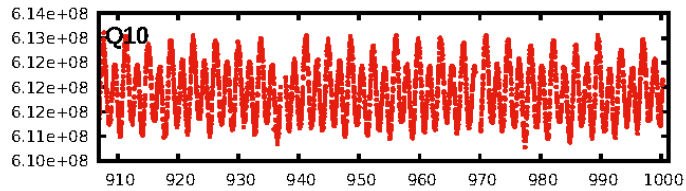
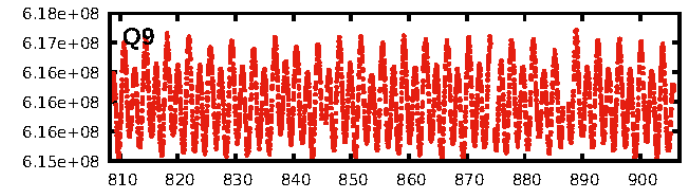
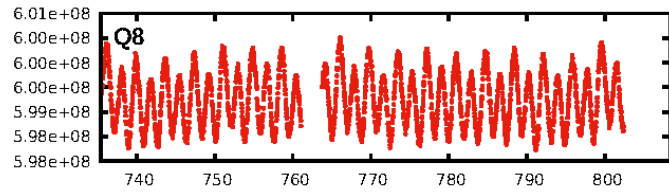
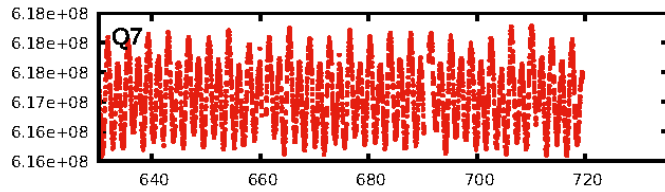
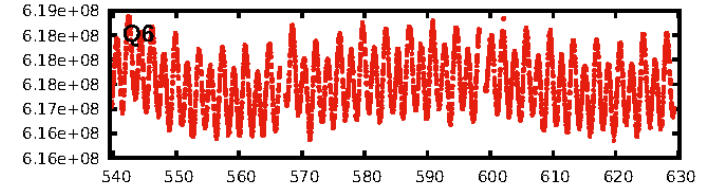
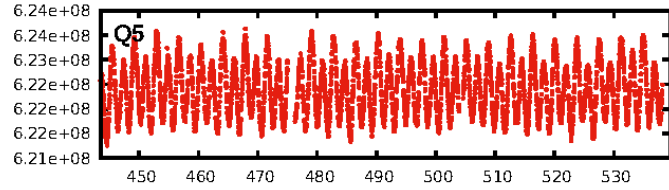
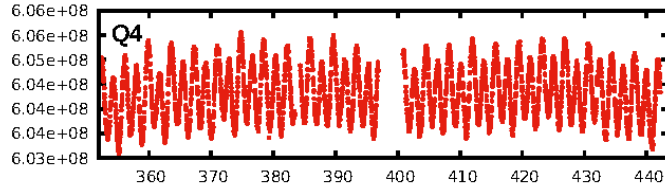
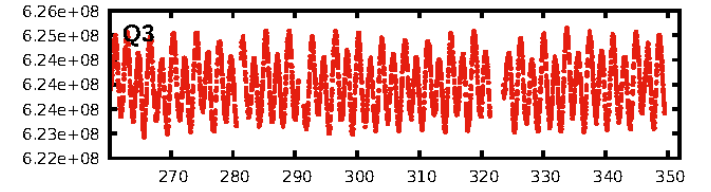
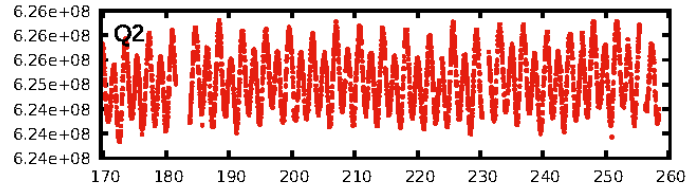
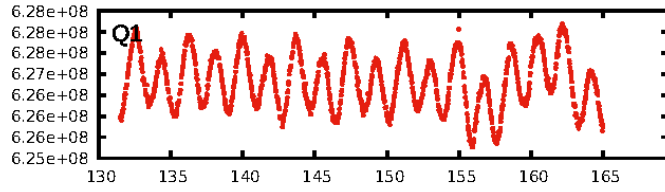
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [353/353]
GhostDiagnostic-chr: 0.6579
Centroid-sig: 0.0%
Centroid-so: 0.153 arcsec [1.44σ]
OotOffset-rm: 4.242 arcsec [1.85σ]
KicOffset-rm: 4.341 arcsec [1.45σ]
OotOffset-st: 0/3/0/1 [4]
KicOffset-st: 0/3/0/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/17]

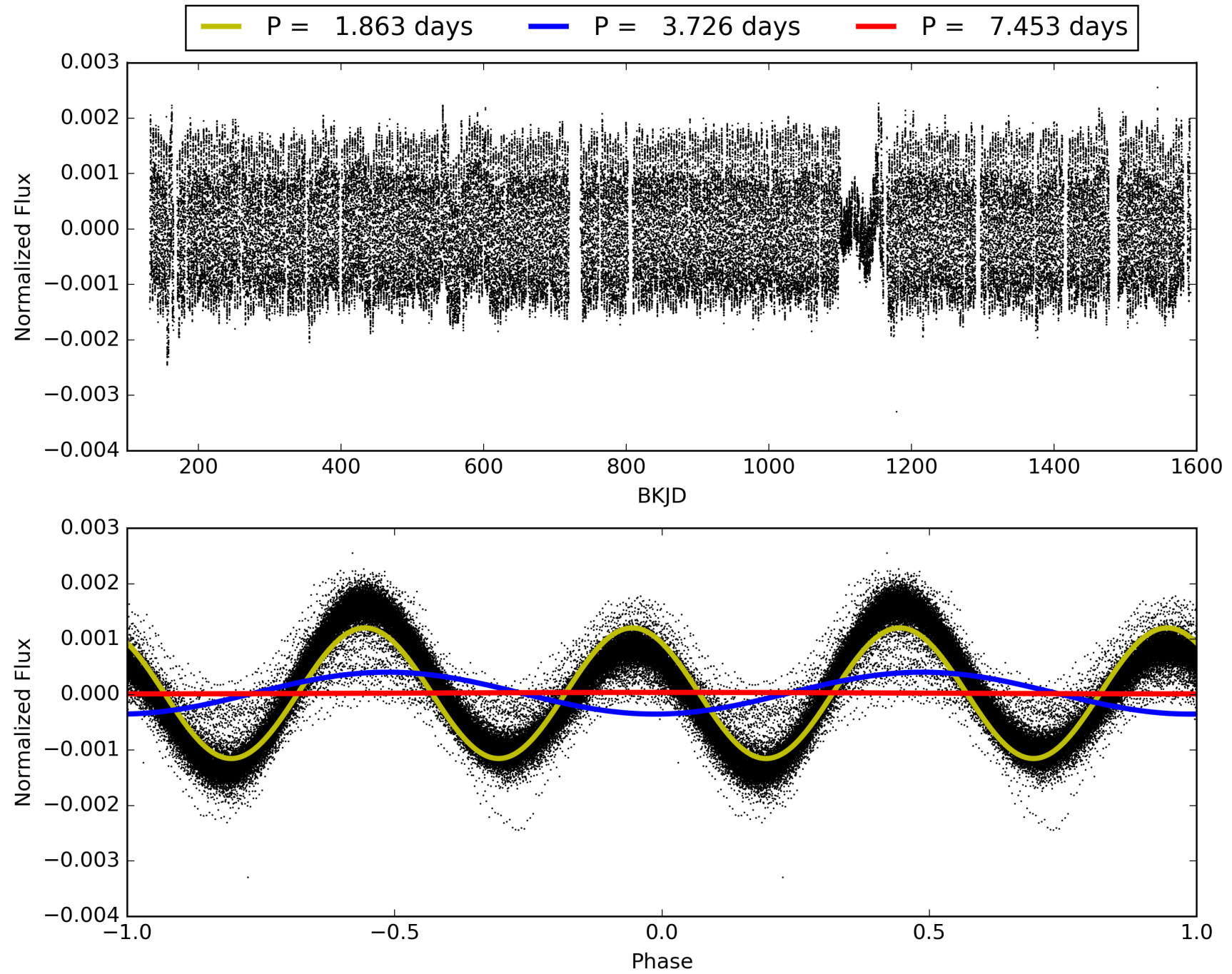
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:51:39 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005263749-03, PDC Light Curves

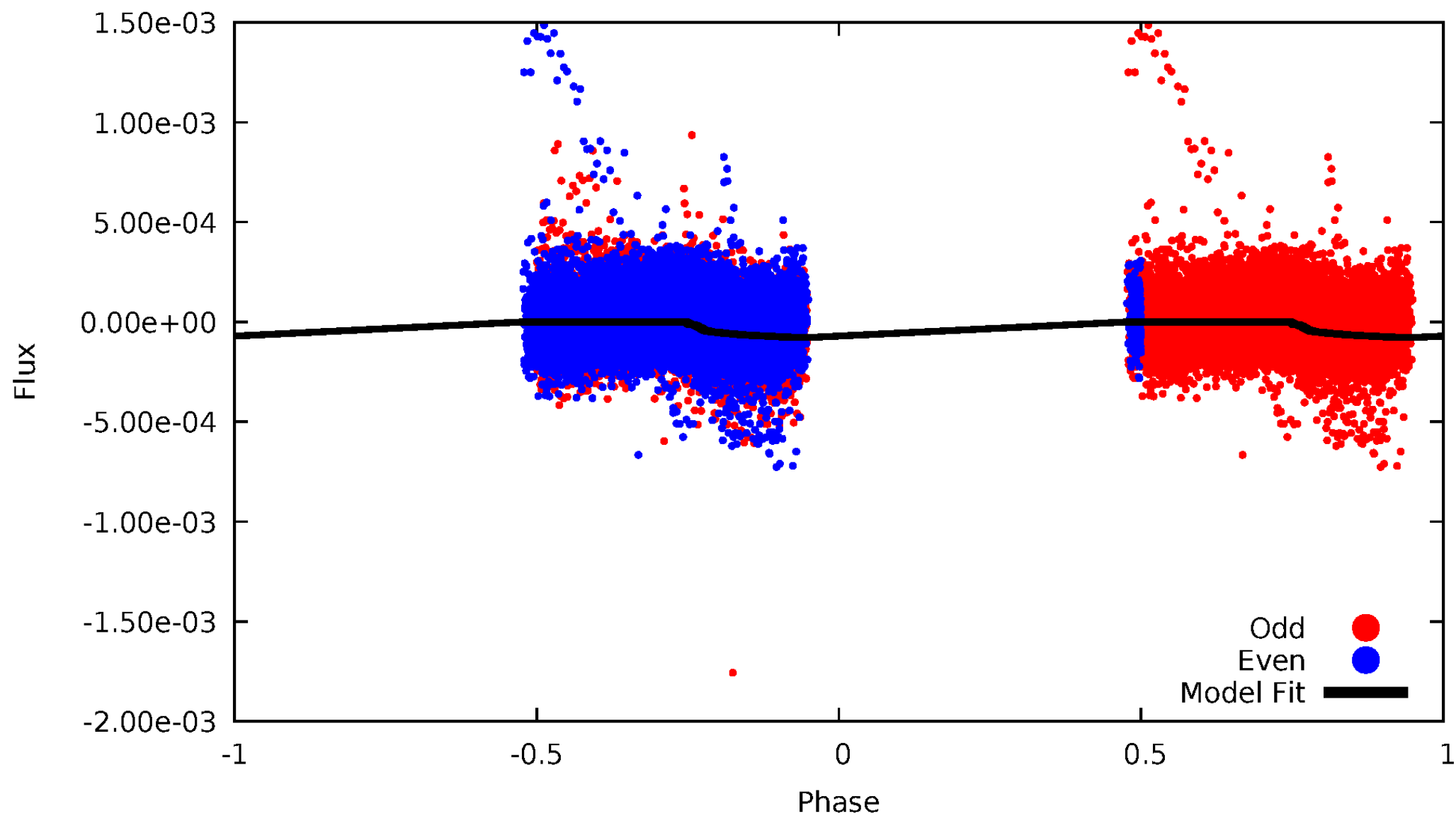


TCE 005263749-03



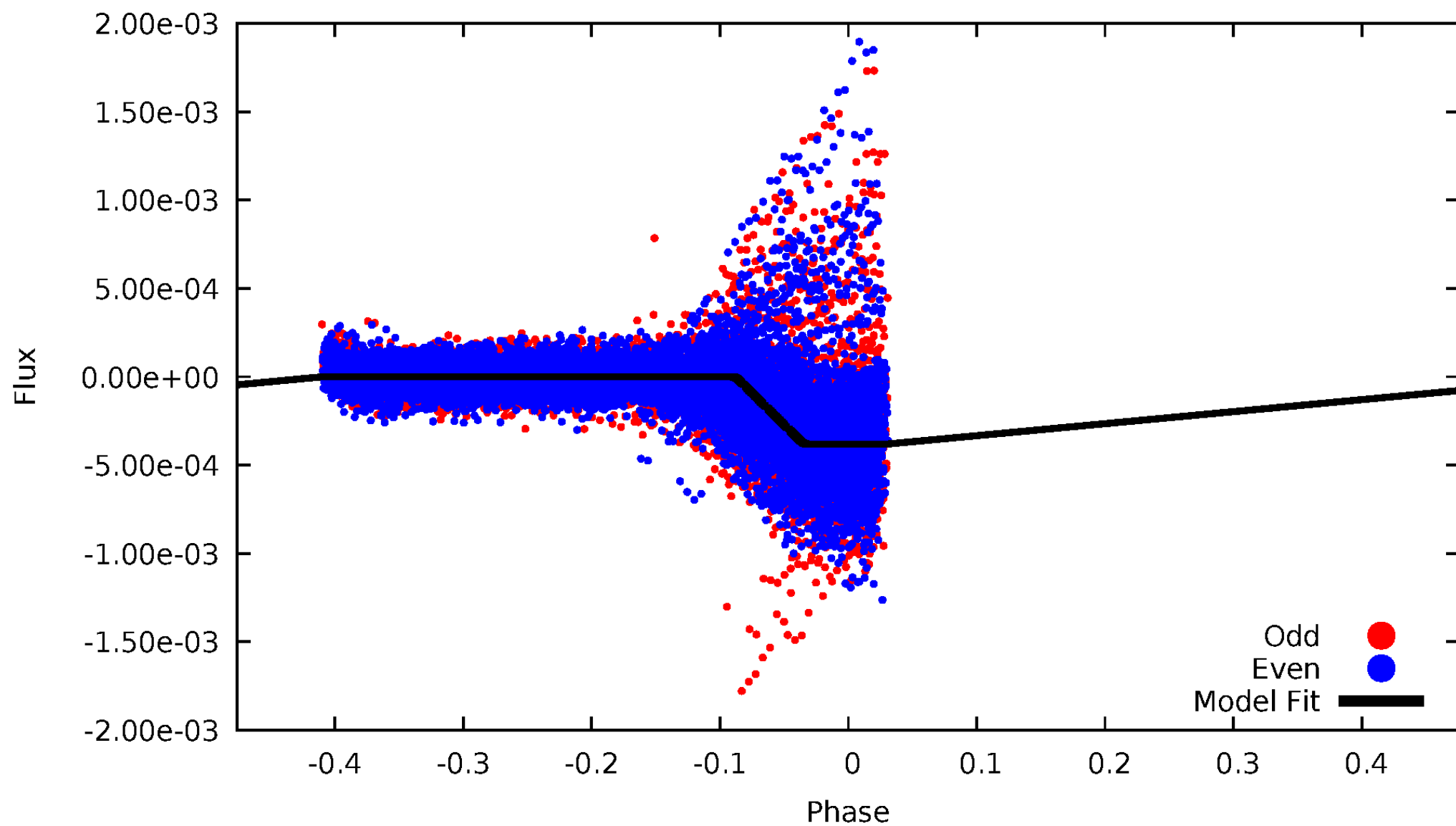
DV Odd/Even

TCE 005263749-03



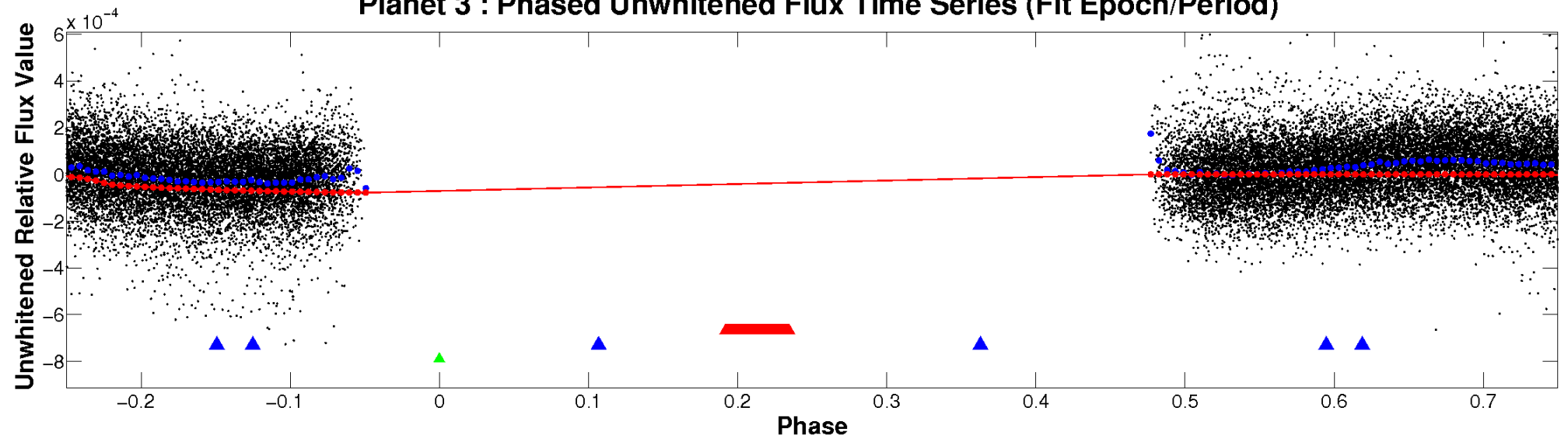
ALT Odd/Even

TCE 005263749-03

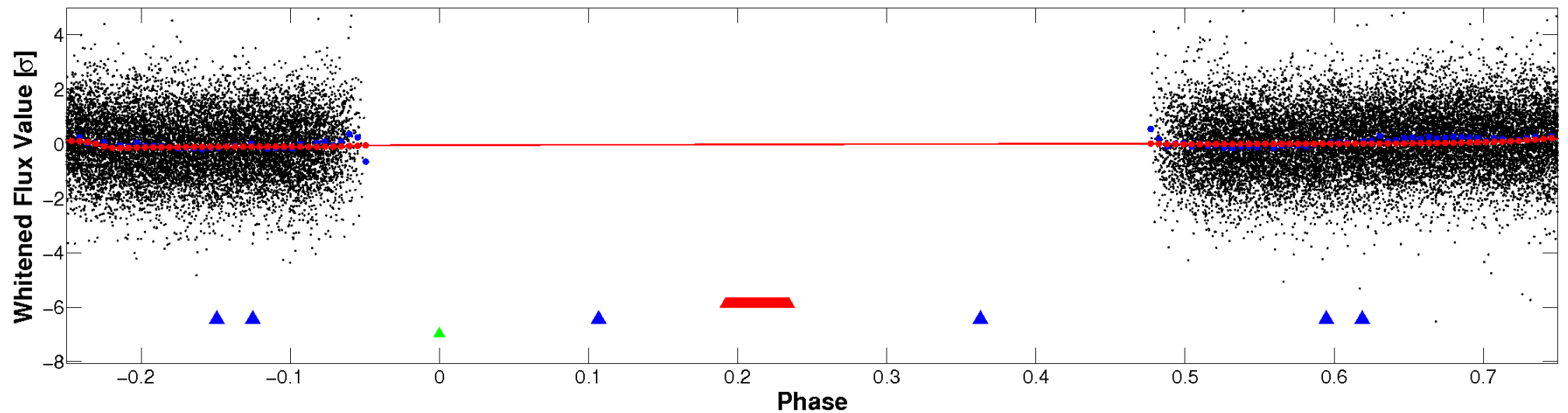


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

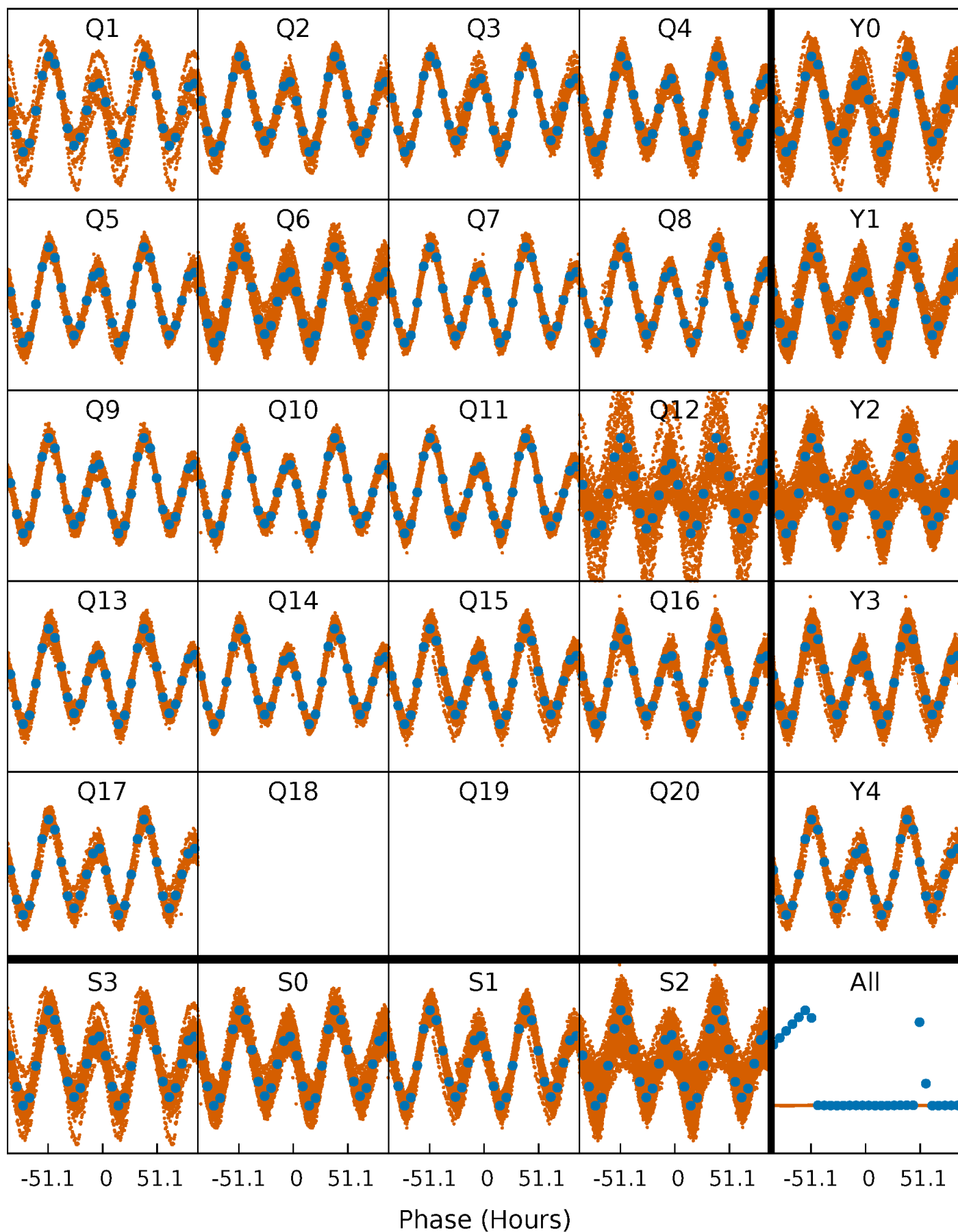


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



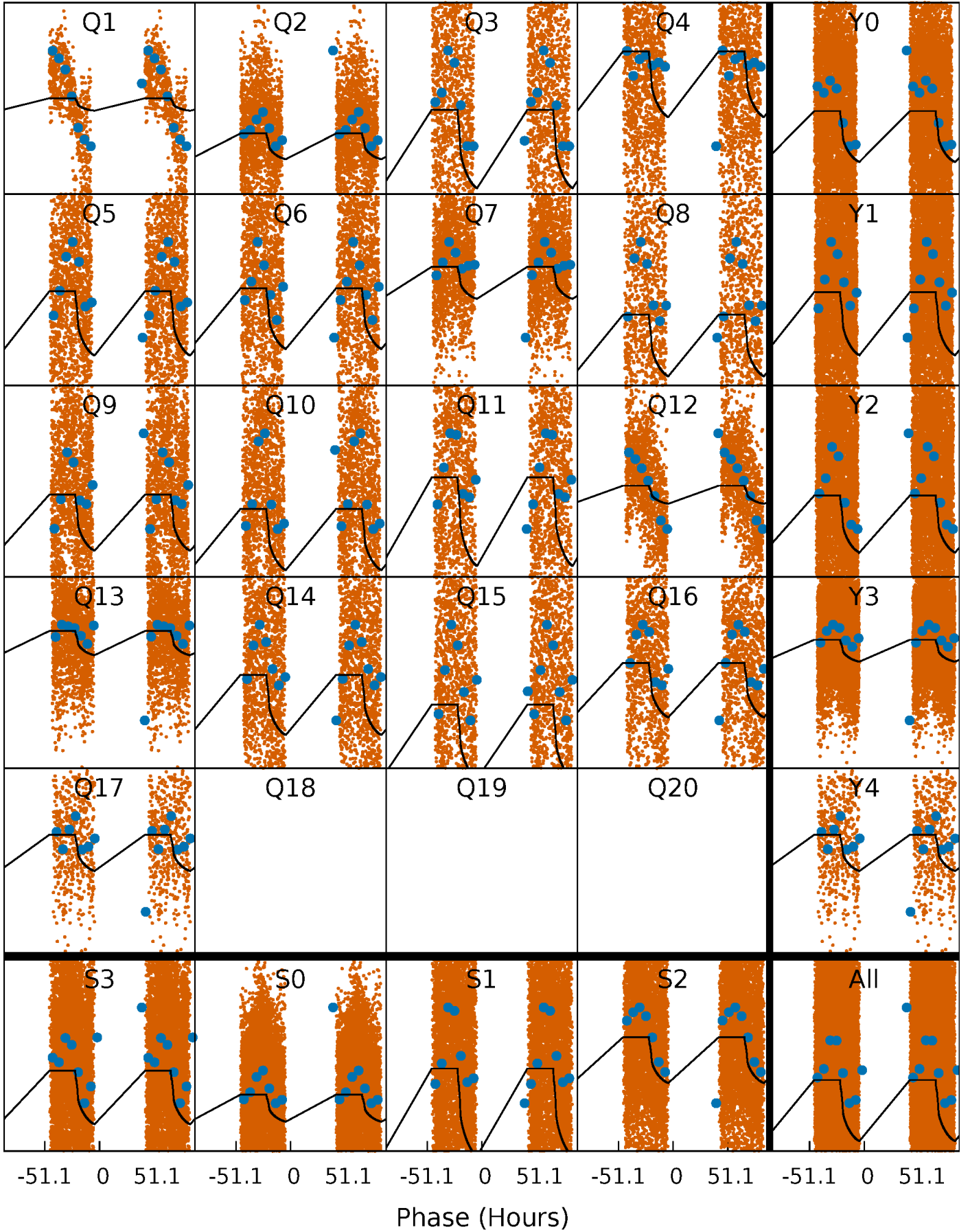
PDC Quarter-Phased Transit Curves

TCE 005263749-03 P= 3.726499 Days $T_0=134.574149$ (BKJD)



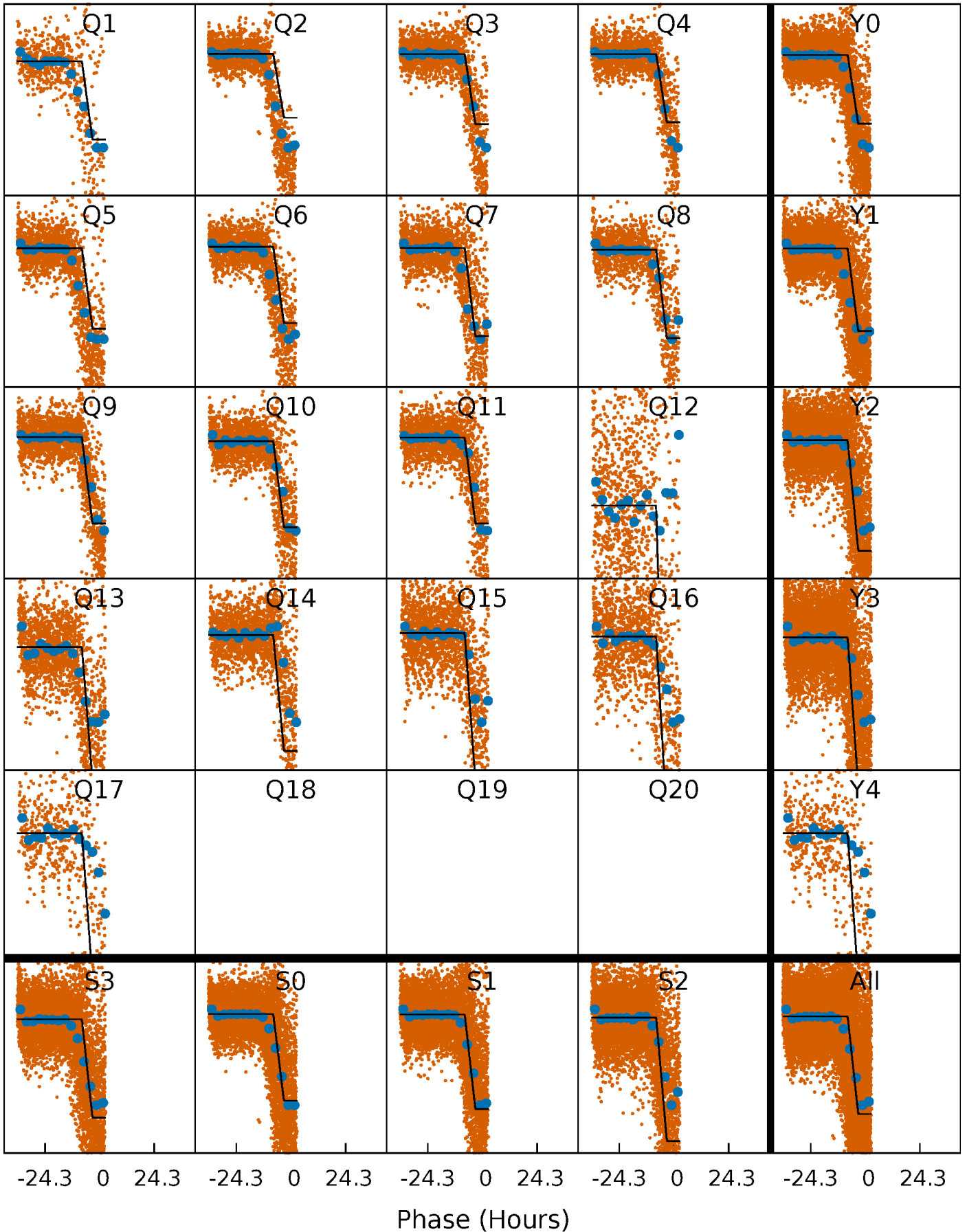
DV Quarter-Phased Transit Curves

TCE 005263749-03 P= 3.726499 Days $T_0=134.574149$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

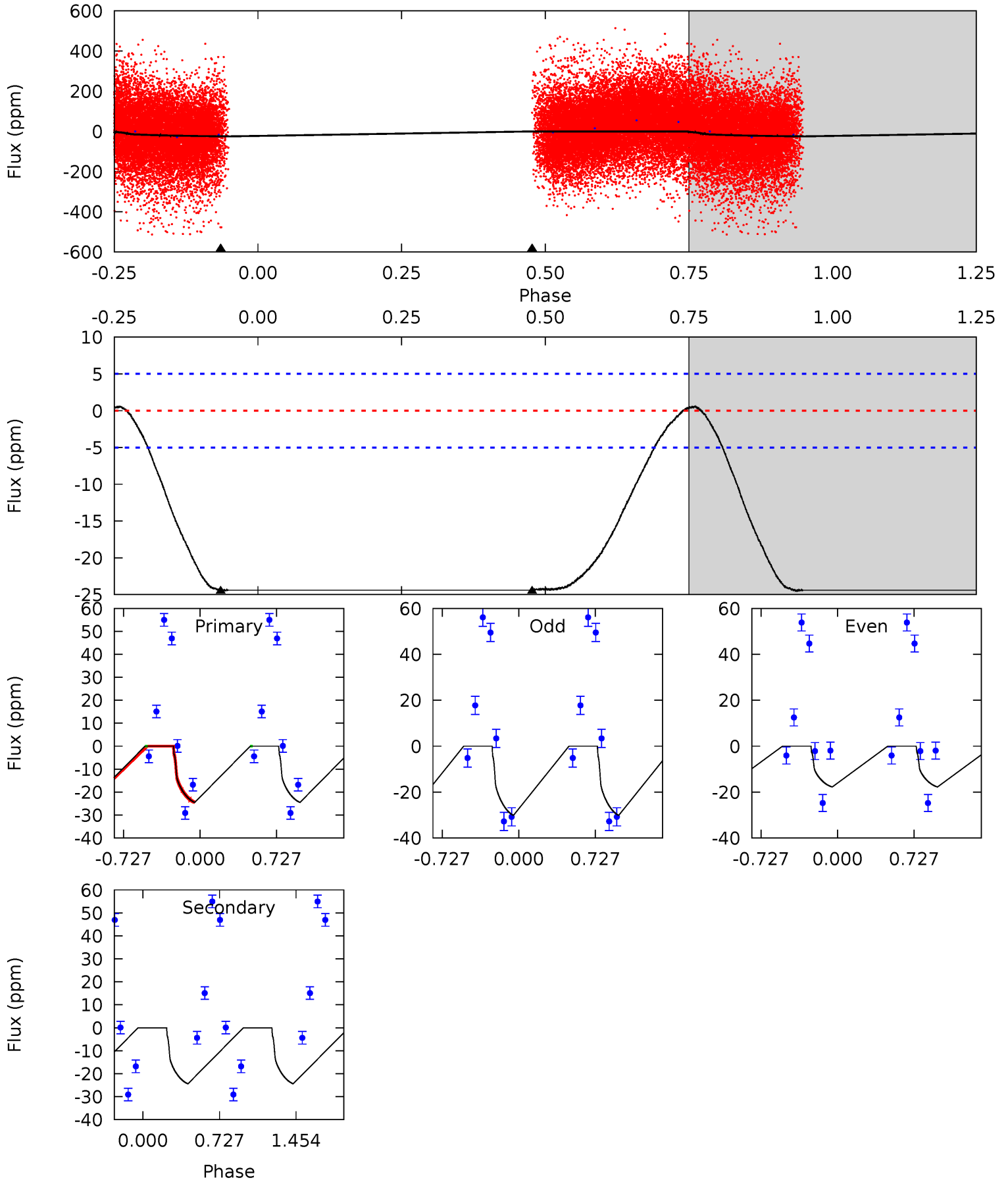
TCE 005263749-03 $P = 3.726808$ Days $T_0 = 134.151467$ (BKJD)



DV Model-Shift Uniqueness Test

005263749-03, P = 3.726499 Days, E = 130.847650 Days

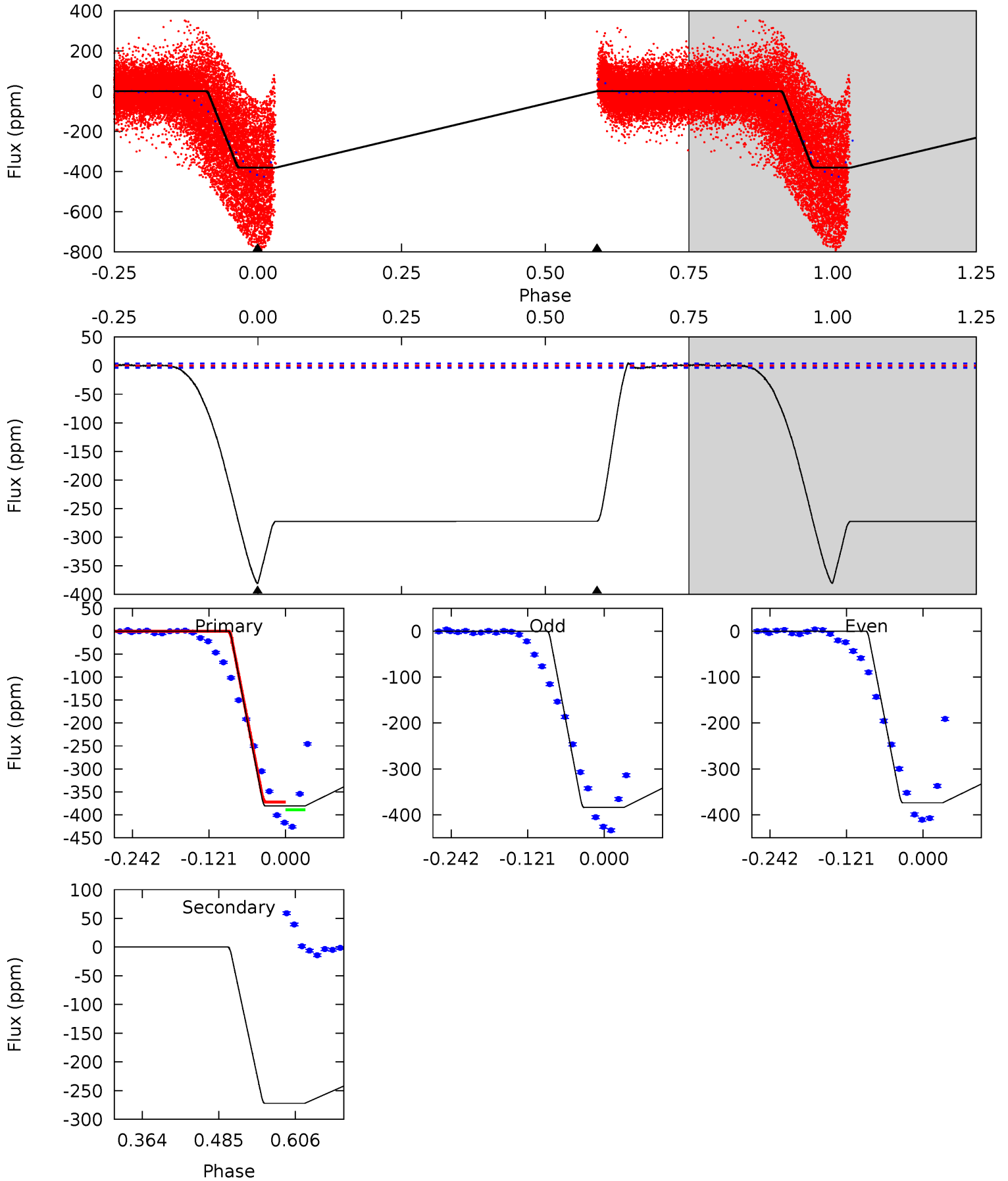
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.2	20.1	0	0	4.13	0.35	0.76	20.2	20.2	20.1	20.1	5.21	0	0.03	0



Alt Model-Shift Uniqueness Test

005263749-03, P = 3.726808 Days, E = 130.424659 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
453.3	324.0	0	0	4.52	1.55	2.01	453.3	453.3	324.0	324.0	5.93	0.82	0.01	2.09



Stellar Parameters For KIC 005263749

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6547^{+85}_{-78}	$4.061^{+0.159}_{-0.116}$	$0.000^{+0.150}_{-0.200}$	$1.818^{+0.363}_{-0.399}$	$1.391^{+0.123}_{-0.135}$	$0.326^{+0.272}_{-0.129}$
	+1%/-1%	+4%/-3%	+inf%/-inf%	+20%/-22%	+9%/-10%	+83%/-39%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005263749-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 1	$1.68^{+0.21}_{-0.19}$	2377^{+112}_{-124}	5036^{+135}_{-130}	13^{+3}_{-3}
Alt.	-272 ± 1	$3.85^{+0.39}_{-0.42}$	2383^{+107}_{-139}	6006^{+100}_{-93}	27^{+8}_{-4}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

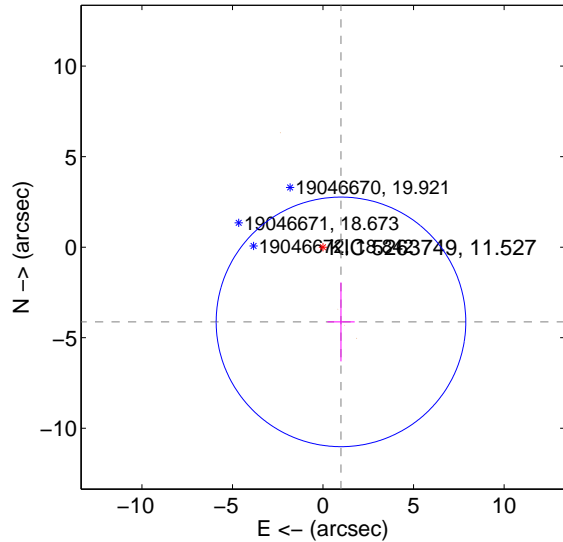
Supplemental centroid analysis for 005263749-03. **Kepler magnitude: 11.53.** Transit SNR 14.60

There are 0 quarters with good PRF difference image offsets

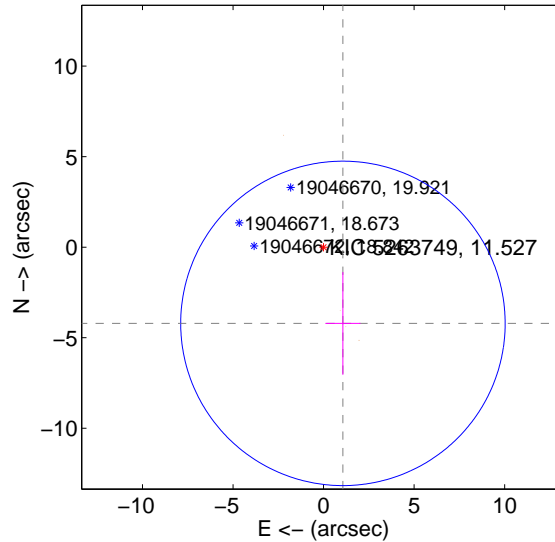
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.242 ± 2.297	1.85	-0.991 ± 0.756	-4.124 ± 2.182
PRF-fit source offset from KIC position	4.341 ± 2.985	1.45	-1.068 ± 0.969	-4.208 ± 2.836
photometric centroid source offset	0.15 ± 0.11	1.44	0.09 ± 0.10	0.13 ± 0.11

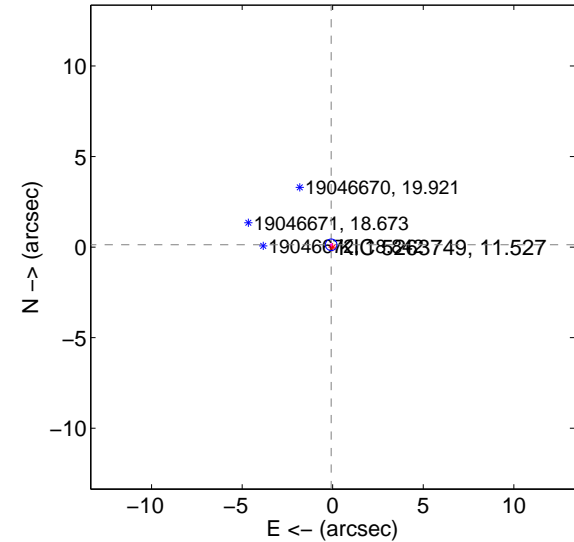
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

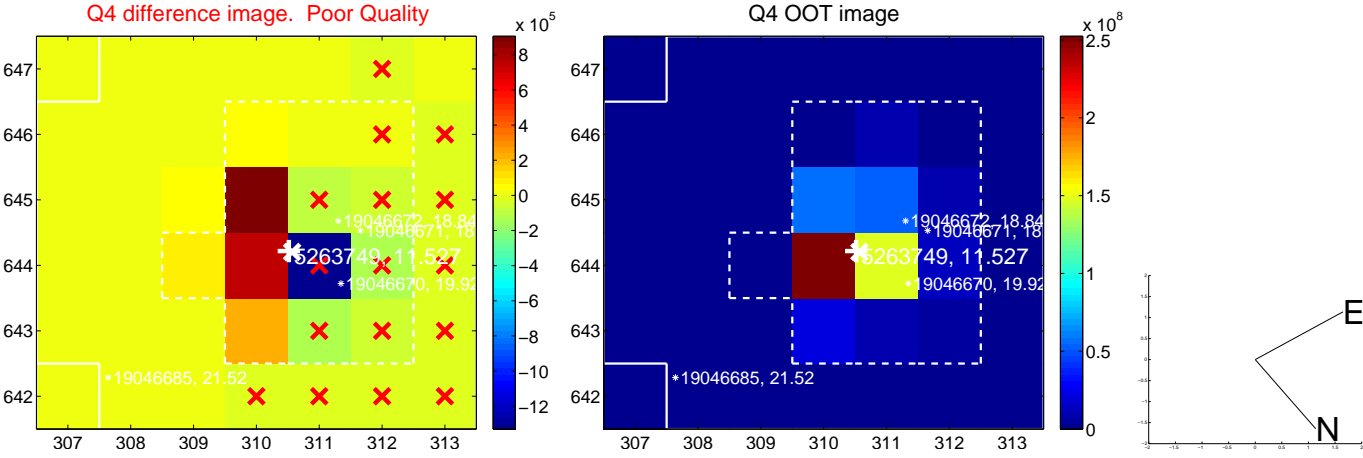
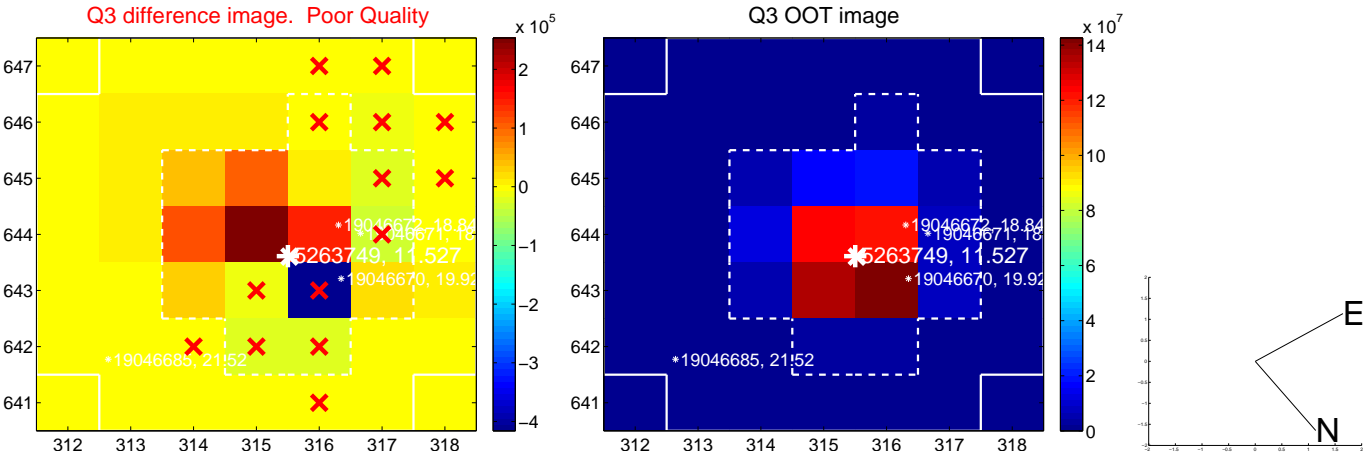
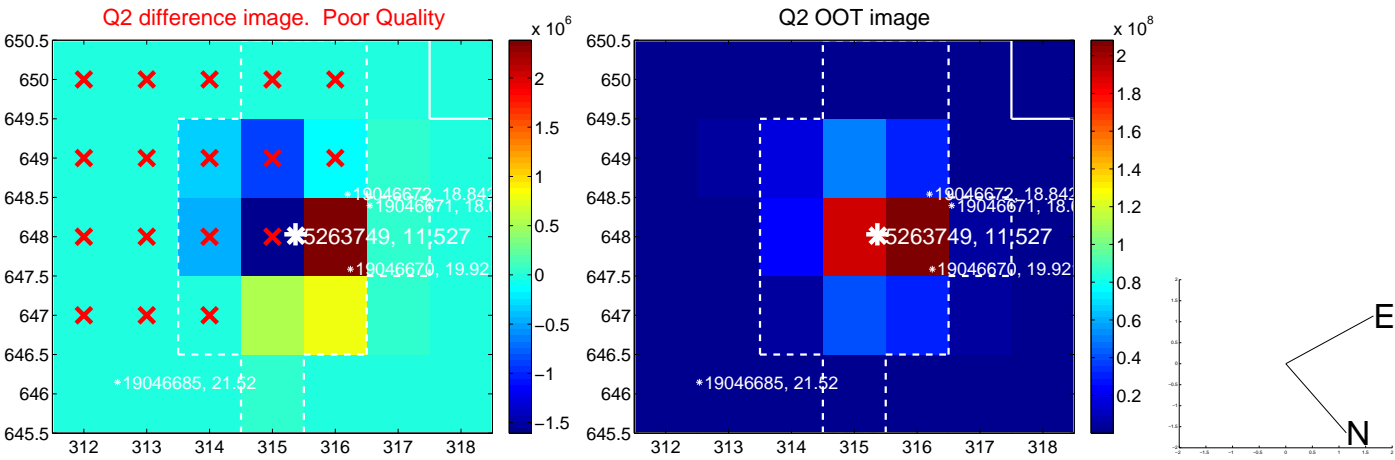
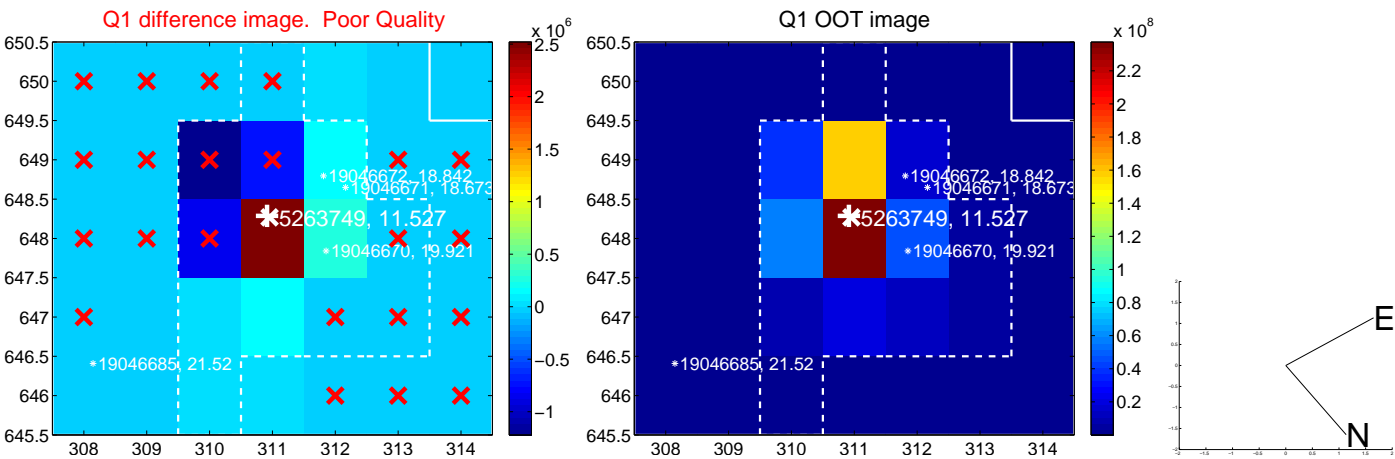


offset from photometric centroids

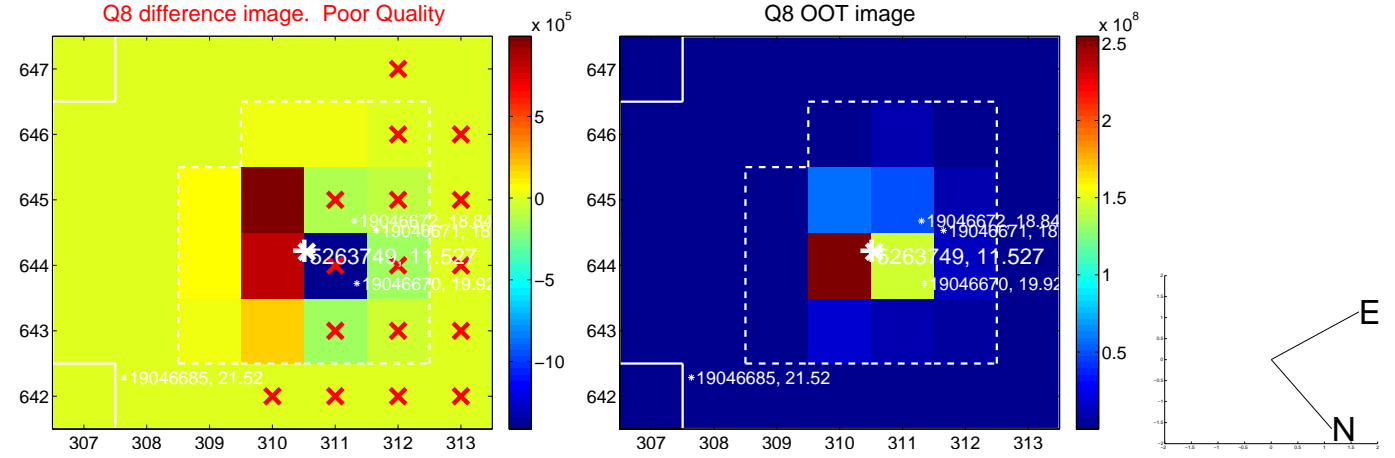
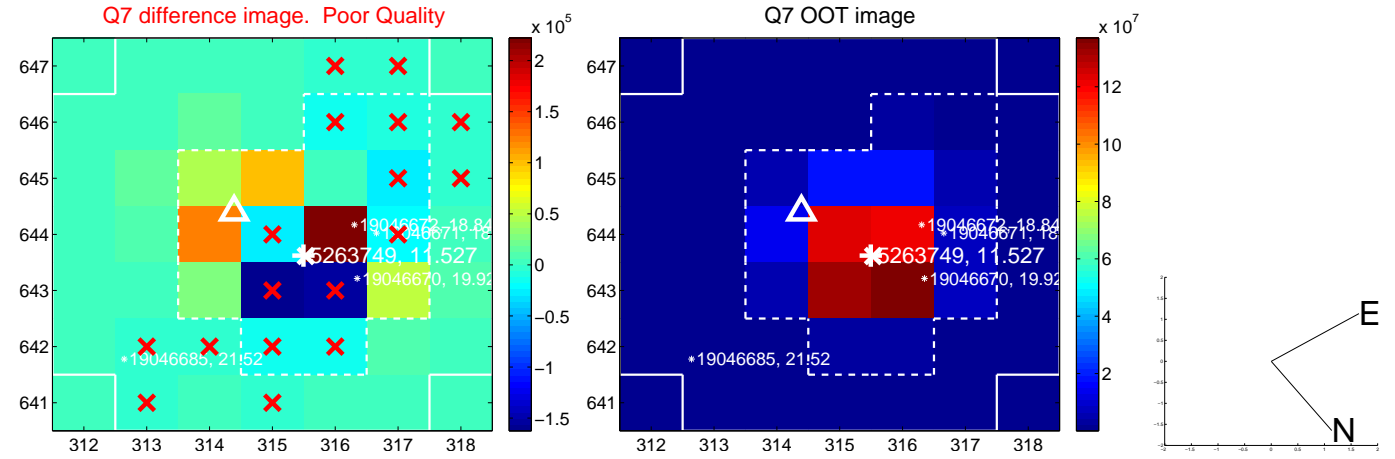
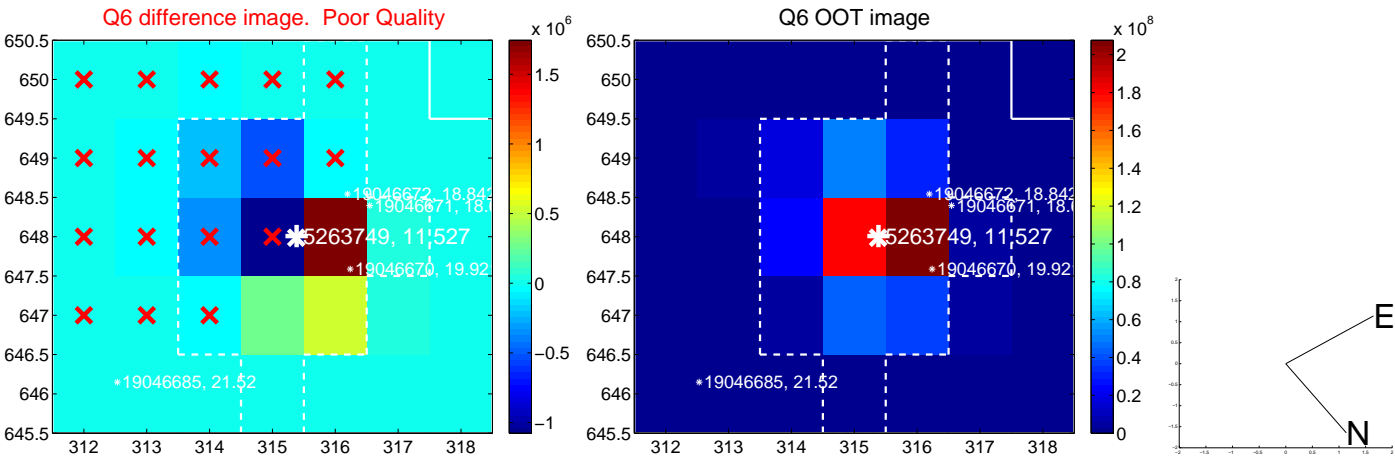
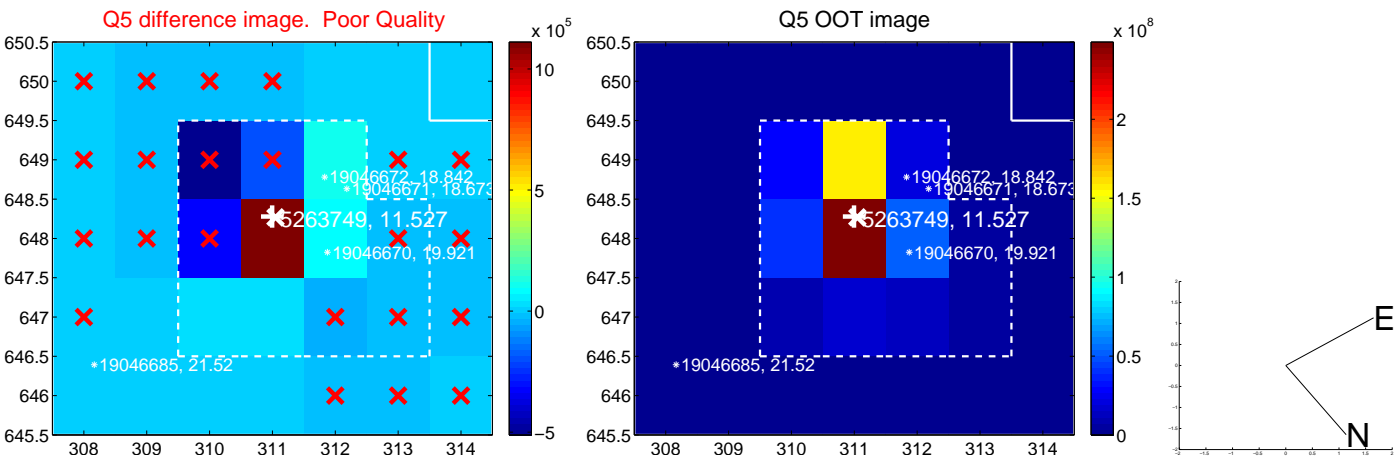


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

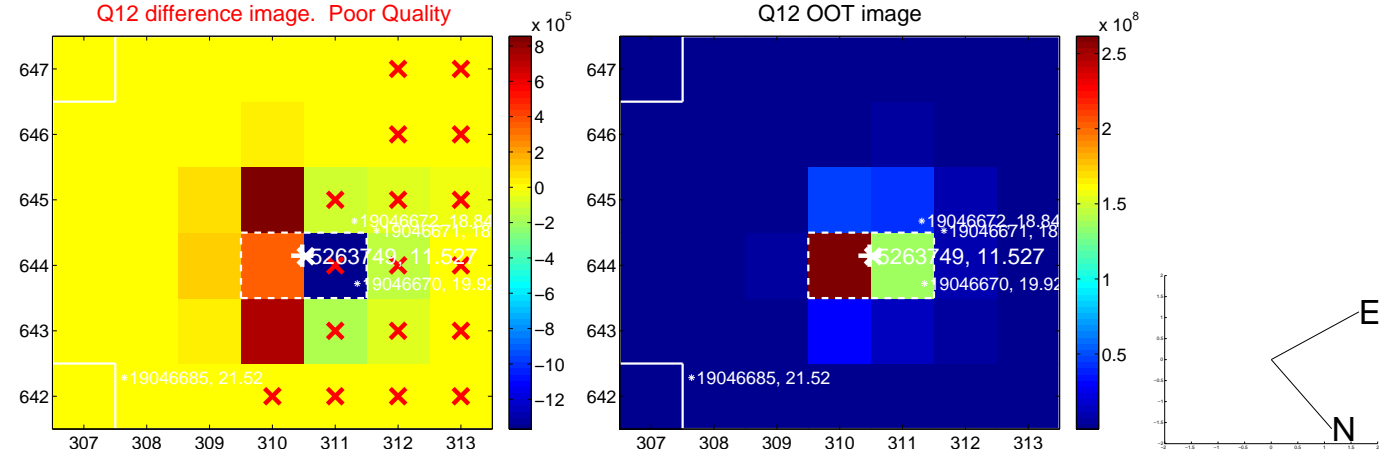
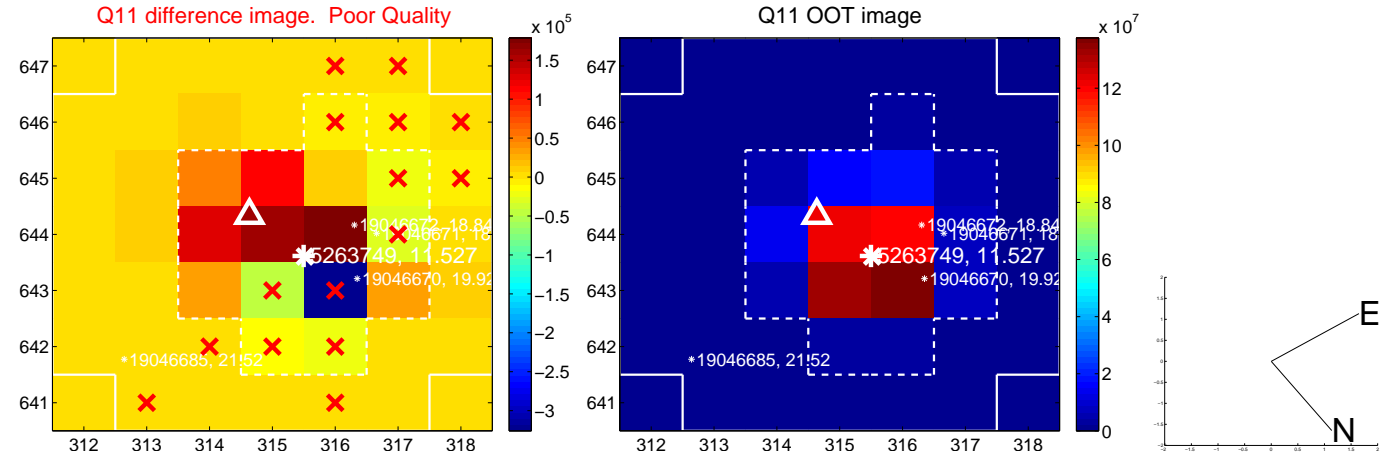
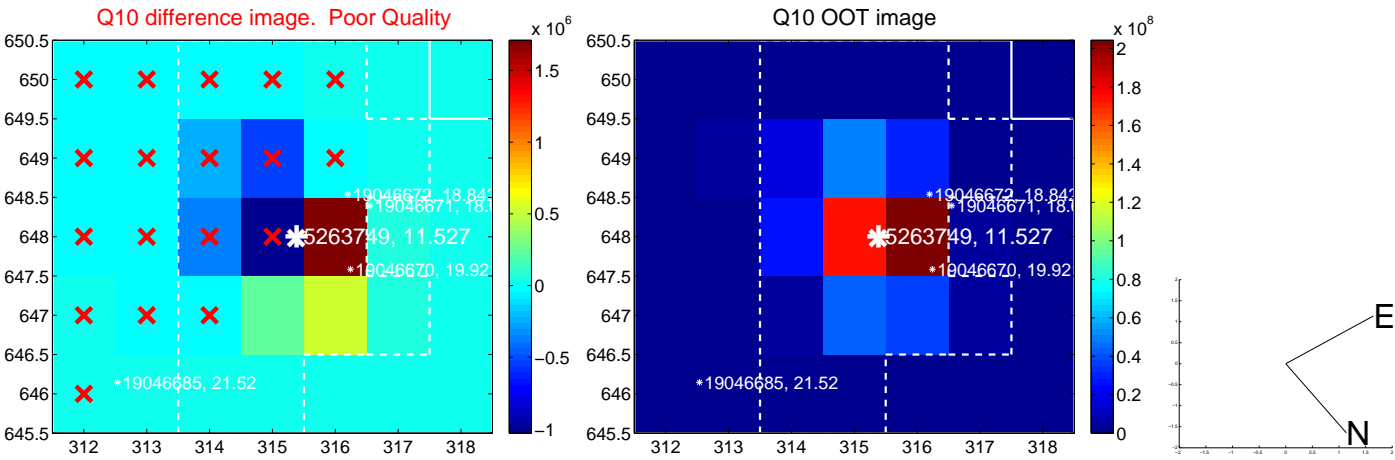
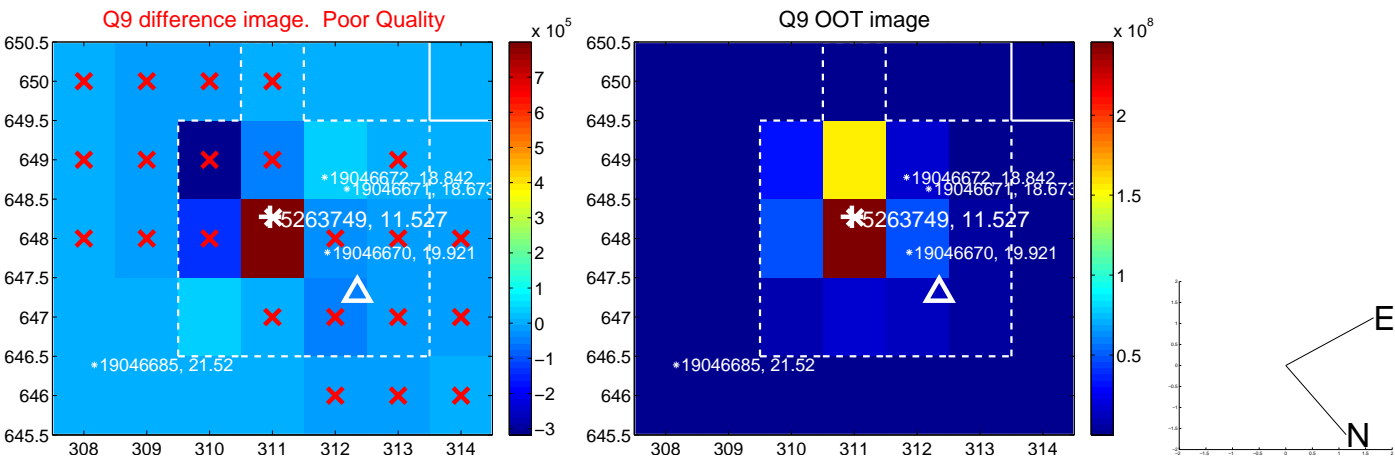
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



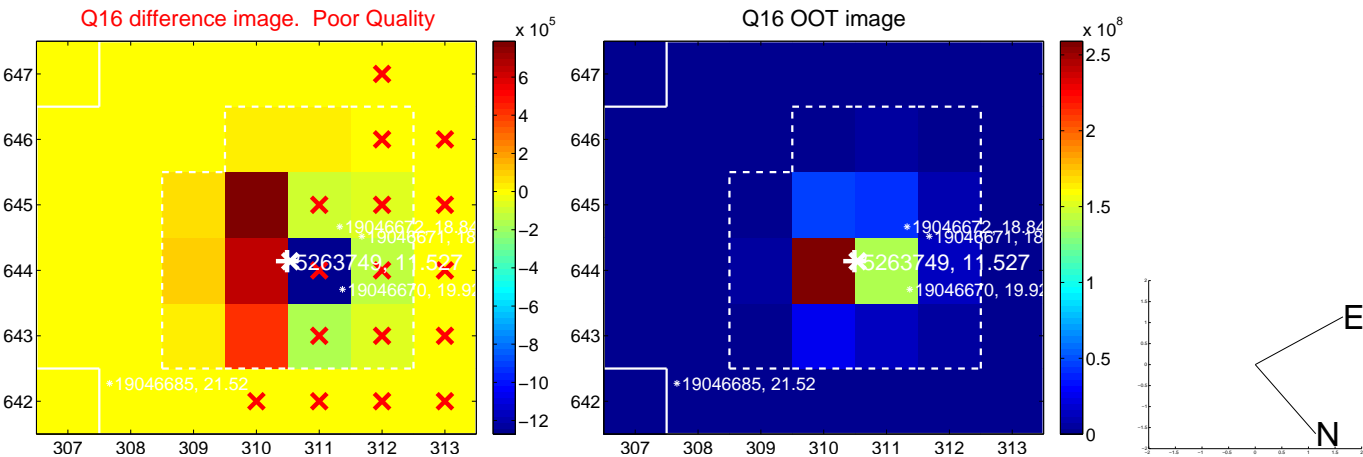
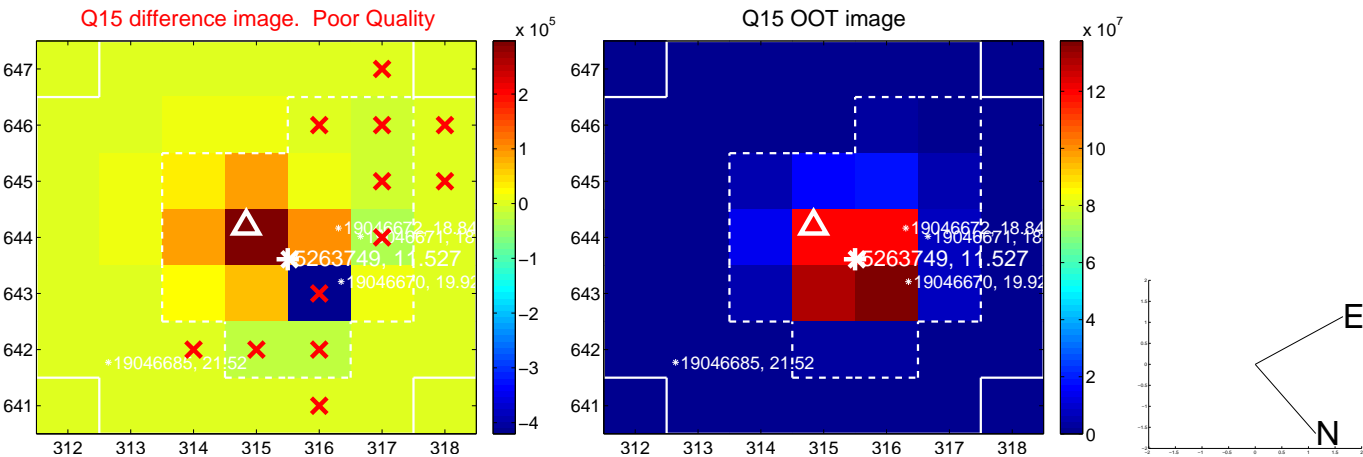
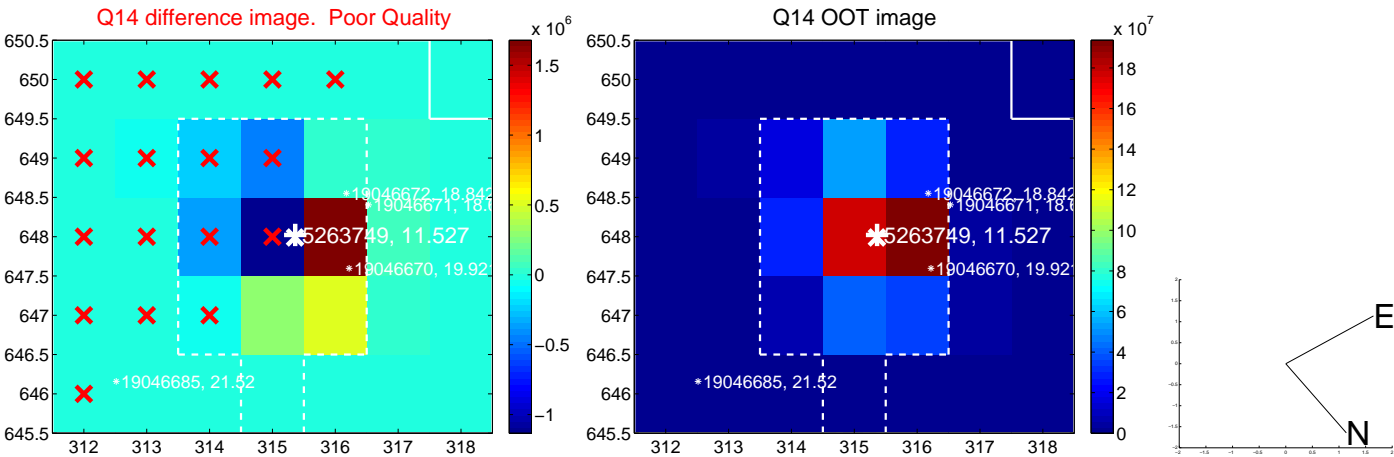
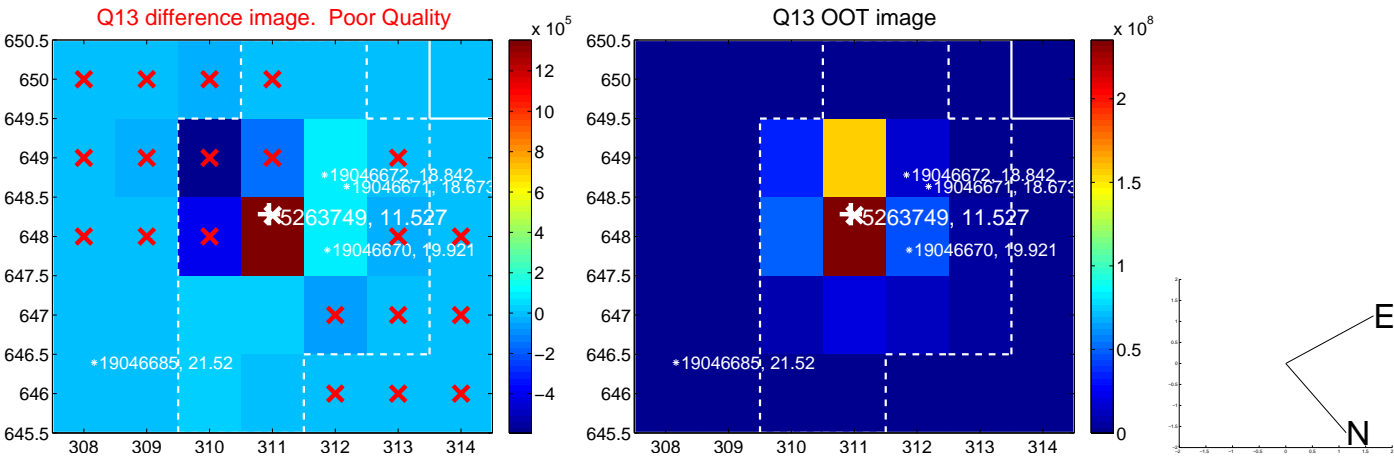
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



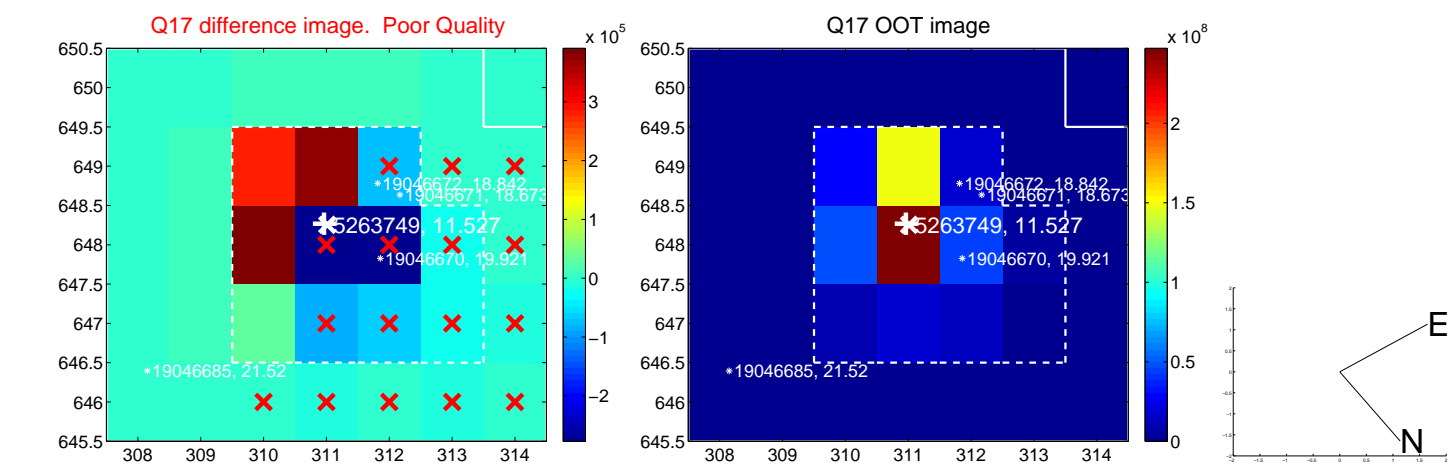
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



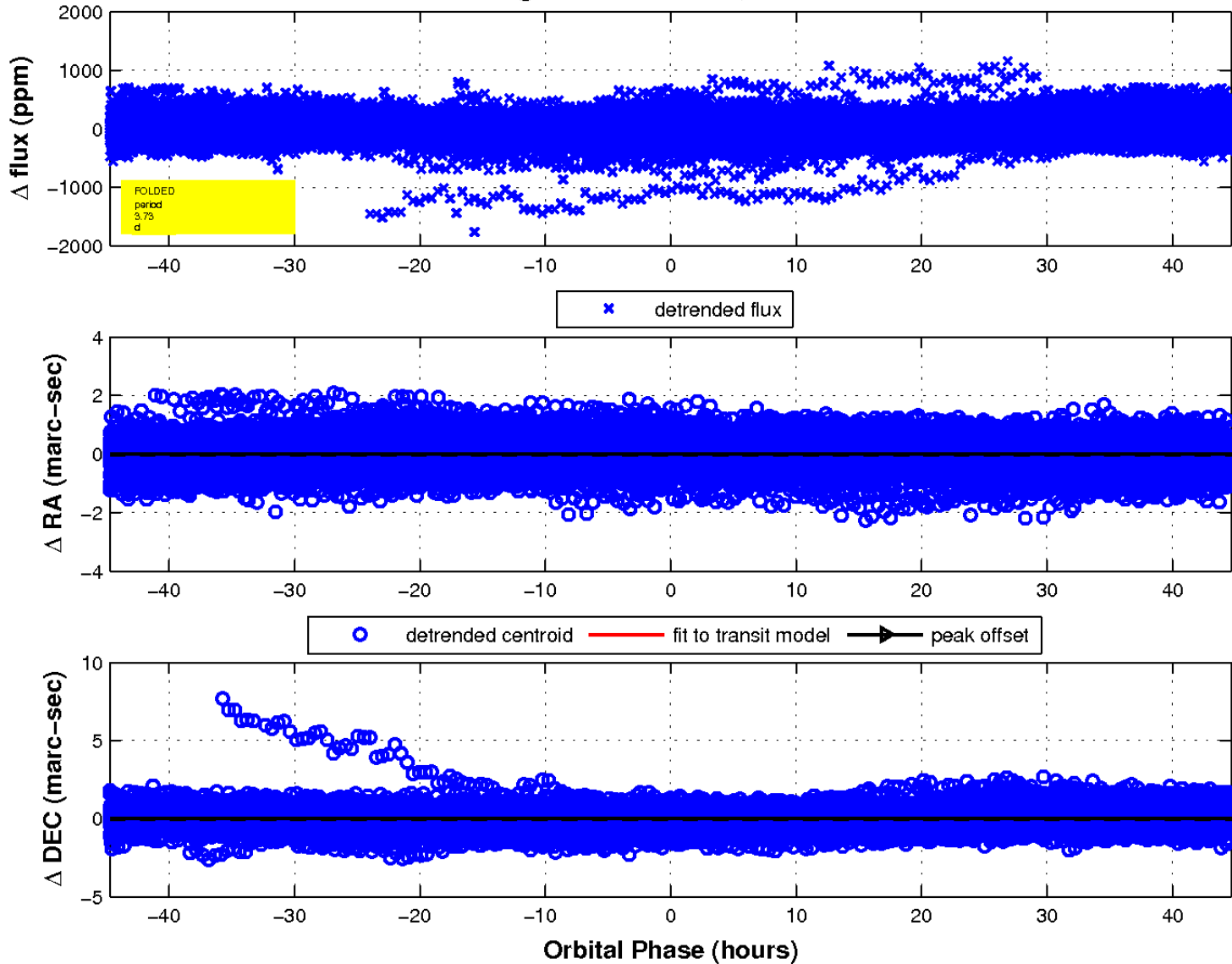
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

